

Military Affairs

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WINTER, 1946



NEMESIS JACKSON

AN EDITORIAL

As this issue of *MILITARY AFFAIRS* comes to you it simultaneously marks completion of our tenth year of publication. In the spring of 1937 our magazine made its initial appearance in the form of a modest little journal of forty pages. At the bottom of the first page, in small print, appeared a cautious statement that it would be "published from time to time" and that the subscription price would be \$2.50. After its first brave but feeble peek into the world it decided that military history was here to stay and it determined to stay, too. Although a decade has passed now, those devotees of military history who principally supported its weak legs until it could stand on its own, have seen it grow into a mature, respected historical institution designed for the prime purpose of stimulating and advancing the historical study of all that relates to war, with especial emphasis upon the American field. Since its early days many persons have been added to and subtracted from its editorial staff, all of whom were unable to devote more than their spare time to the task of producing the magazine. However, those who contributed most to the journal in its initial stages, are today guiding its destiny toward its being an organ of far greater scope, but still with a constant basic desire to serve as a medium for the free interchange of constructive and stimulating thought among members. Our magazine should be comprehensive enough to embrace all of the varied fields of war study, scholarly enough to inspire confidence, tolerant enough to encourage the work of the student, formal enough to command respect, and popular enough to invite interest. It has been gratifying to these "fathers" of the journal to see it appear quarterly without interruption for ten years, in which time the subscription price was increased but fifty cents while printing costs have gone up more than one hundred per cent. And in the meantime the magazine improved substantially in quality, size, and circulation.

As this issue is completed, the editorial staff begins work on another issue starting a new decade, and it does so with greater enthusiasm and more extensive support than before, and fortified with confidence derived from contemplating the accomplishments of the past. Also, for the first time, it welcomes a full time staff member with editorial experience who will have no other assignment but to work on the journal and to see to its publication on a regular deadline basis. There will be a constant effort to conceive and effect improvements and to make changes which may in any way tend to perfect that to which our many members have so faithfully subscribed. No longer is it "an adventure—an experiment" but a tangible memorial to those pioneers whose energies and foresight permitted our progress thus far. Quite definitely the apologetic statement "The Journal is published from time to time" which connotated the shaky status of the first issue can be eliminated from page one of *MILITARY AFFAIRS* in the future.

Military Affairs

Journal of the



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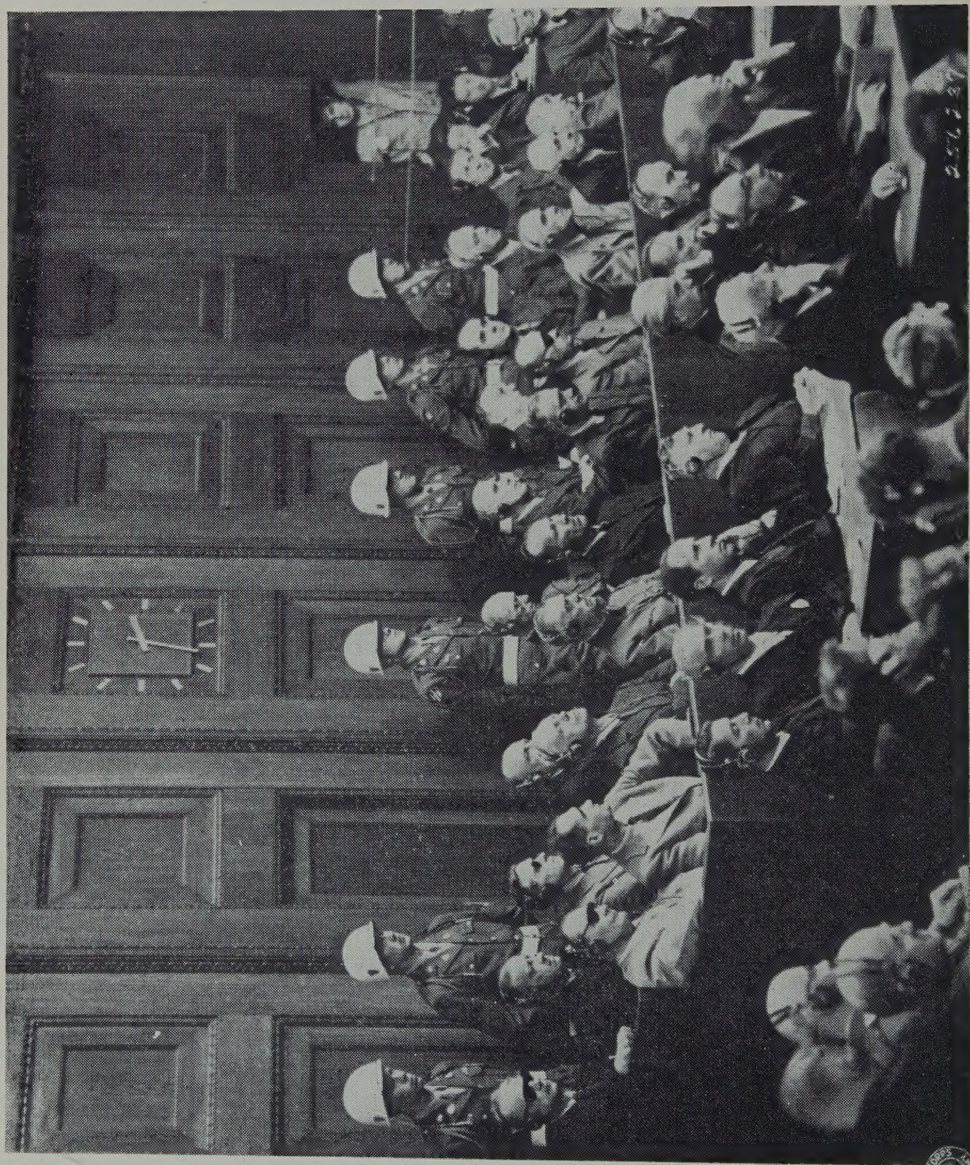
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COVER: Justice Robert Houghwout Jackson was born in Spring Creek, Pennsylvania, on February 13, 1892. He received his legal degree at Albany (New York) Law School and after practicing in Jamestown, New York, until 1934, came to Washington as counsel for the Bureau of Internal Revenue. Later he became Assistant Attorney General and in 1938 Solicitor General of the United States. In 1940 and 1941 he was a member of President Roosevelt's cabinet as Attorney General, and in 1941 was appointed Justice of the Supreme Court of the United States. As Chief Counsel for the United States in 1945 he negotiated an agreement for the trial of Nazi war criminals with England, France and Soviet Russia. The trial, first of its kind in the history of the world, established as a matter of International Law that individual statesmen are personally answerable for the crime of initiating or waging a war of aggression. After the trial Justice Jackson was the guest of the governments of Czechoslovakia, Austria, Norway, Denmark, and Sweden. He twice was received for lengthy audiences by Pope Pius XII in Rome. The French government awarded him two medals in appreciation of services to the law, and he also received citations in England and Belgium. In 1946 he was the recipient of two honorary degrees of Doctor of Laws, one from the University of Buffalo and the other from Western Maryland College. President Truman recently awarded him the Medal of Merit for his work in connection with the war crime trials.



TIME is highly expendable for these twenty-one Nazis as they hear final statements in the Nuremberg trial.

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THE SIGNIFICANCE OF THE NUREMBERG TRIALS TO THE ARMED FORCES*

*Previously Unpublished Personal Observations by the Chief Counsel
for the United States*

BY MR. JUSTICE ROBERT H. JACKSON

The armed services are naturally concerned as to what we were driving at at Nuremberg, and as to the principle on which the leaders of the German armed services were called upon to pay a penalty for their acts. Military men throughout the world wanted to know what it was that brought the German military men to that somewhat unhappy position. I propose to face that problem very frankly today and to discuss the effect of this trial on the profession of arms.

It is very difficult to carve out of this case just those things which relate to the military men because they were a part of a large conspiracy which involved the seizure of power in Germany, the rearmament in defiance of the Versailles Treaty, and during its early stages in secret, the raising and drilling of an army concealed as a labor corps in violation of that treaty, and a great many steps which cannot be separated from the main stream of

the case and treated as pertaining principally to military matters. If one were to deal with all the things that would be of particular interest to you, it would require much more time, both in preparation and in delivery, than I am able to give it, but I can give you some general idea of the law which we sought to establish and of the basis of the judgment against the service men who were condemned.

First of all, I think you should know that the idea of a trial of these German leaders did not originate among theoreticians of the legal profession. This plan originated in the War Department. This plan was pretty fully developed in the War Department before I was appointed. This plan was developed largely to implement the ideas and ideals of Secretary Stimson who for many years had advocated the outlawry of aggressive war, and who probably knows more about that subject than any statesman in the United States—and I refer to him as a statesman because his career shows a more farsighted understanding of what was going on in the world than that of any man I know. And oftentimes I cited him as my authority and sometimes didn't have much else, but I think I was well fortified with him.

When President Roosevelt went to Yalta he took a memorandum which had been approved by Secretary Stimson, Secretary Stet-

*A speech on the Nuremberg trials which was delivered by Mr. Jackson before a special group at the National War College, Washington, D. C., 6 December, 1946, is printed here in complete form, without introduction, by special permission of Mr. Jackson and the Commandant of the College. One of the principal points which Mr. Jackson seeks to clarify is the considerable misunderstanding in military and naval circles as to the exact objective of the prosecution. He offers proof that justice, in the form of hanging, was meted to war criminals, and not military men who were only following superior orders.

tinus and the Attorney General, Mr. Bidle. That was presented and discussed briefly, and I think very vaguely, at Yalta, and they referred it to the Foreign Ministers to prepare some implementation. The Foreign Ministers became engaged in other things, and eventually it drifted until it was left to me to negotiate agreement on behalf of the United States at London.

It might be well to quote what Mr. Vishinsky said when he came to Nuremberg. He said in substance that "The reason we were able to get an agreement was that it was left to lawyers instead of diplomats." Since Vishinsky was himself a diplomat as well as a lawyer I take it he was not referring disparagingly to one of his own professions. What he meant, and what I think is true, is we were given an unusual measure of authority. The subject was technical and a little troublesome, and they wished it onto us and let us go. We didn't have to debate the political questions which get involved some way with these things in the councils of nations. Our conferences were private conferences. The press was not in to publish rumors and stir up trouble as the press sometimes does in international affairs, and we were able to work out an agreement which reconciled four legal systems. Our own and that of the British were easy to reconcile; our own and that of the French were not so easy; our own and that of the Soviet Union are quite different. But we adopted a system by which these German prisoners would be given a fair hearing, and if there was any defense in the world for what they had done, it could be heard.

STIMSON'S INFLUENCE

In so doing we were carrying out this plan, which originated in the War Department. Secretary Stimson made important contributions in the early stages of the development

of the law against the wars of aggression. But he also has written, and I commend to your attention when it is published, an article for "Foreign Affairs." He is one of the few men who has really studied the documents before he wrote. There has been a great deal of comment on the Nuremberg trial written by people who didn't bother to read the documents. I don't mean to say that Secretary Stimson read all of the evidentiary documents, but he examined with great care the agreement, the speeches and the judgment, and he followed the case from beginning to end with a close attention.

He says this: "The great undertaking at Nuremberg can live and grow in meaning, however, only if its principles are rightly understood and accepted. It is therefore disturbing to find that its work is criticized and even challenged as lawless by many who should know better. In the deep conviction that this trial deserves to be known and valued as a long step ahead on the only upward road, I venture to set down my general view of its nature and accomplishments. His conclusion is: "In the judgment of Nuremberg there is affirmed the central principle of peace, that the man who makes plans to make aggressive war is a criminal. A standard has been raised to which Americans at least must repair, for it is only as this standard is accepted, supported, and enforced that we can move onward to a world of peace within the law."

You must recall that the United States found on its hands a considerable group of prisoners, that these prisoners in the judgment of the world were guilty of the most atrocious of crimes. They had started a war without cause, they had waged it without consideration either for their own code or any other law, and they had perpetrated all manner of atrocities on civilians. We tried to glean from existing law and codify defini-

initions of the crimes we intended to prosecute. The law which underlies the Nuremberg trial I will read to you. It had to be quite general and as you will see a good deal had to be left to the discretion of the tribunal.

"(a) CRIMES AGAINST PEACE: namely, planning, preparation, initiation or waging of a war of aggression, or a war in violation of international treaties, agreements or assurances, or participation in a common plan or conspiracy for the accomplishment of any of the foregoing;

"(b) WAR CRIMES: namely, violations of the laws or customs of war. Such violations shall include, but not be limited to, murder, ill-treatment or deportation to slave labor or for any other purpose of civilian population of or in occupied territory, murder, ill-treatment of prisoners of war or persons on the seas, killing of hostages, plunder of public or private property, wanton destruction of cities, towns or villages, or devastation not justified by military necessity;

"(c) CRIMES AGAINST HUMANITY: namely, murder, extermination, enslavement, deportation, and other inhumane acts committed against any civilian population, before or during the war; or persecutions on political, racial or religious grounds in execution of or in connection with any crime within the jurisdiction of the Tribunal, whether or not in violation of domestic law of the country where perpetrated.

"Leaders, organizers, instigators and accomplices participating in the formulation or execution of a common plan or conspiracy to commit any of the foregoing crimes are responsible for all acts performed by any persons in execution of such plan.

"Article 7. The official position of defendants, whether as Heads of State or responsible officials in Government Departments, shall not be considered as freeing them from responsibility or mitigating punishment.

"Article 8. The fact that the Defendant acted pursuant to order of his Government or of a superior shall not free him from responsibility, but may be considered in mitigation of punishment if the Tribunal determine that justice so requires."

The real test of these definitions, which

are of course abstract, is the manner in which they were applied to leaders of the armed forces. Indicted individually before the tribunal was Goering, who was, as you well know, the builder and commander of the Luftwaffe; Keitel and Jodl from the Army; and Raeder and Donitz from the Navy. We also asked that the General Staff as a group be declared criminal. In order to declare any group criminal it was required under the terms of the charter that some individuals representative of the group be convicted. In other words, the group could only be declared criminal provided we tried and heard and convicted a representative who could speak for that group. Keitel and Jodl and Goering, of course, represented the General Staff and High Command; Raeder, Donitz, the Navy.

JUDGMENT UNPUBLISHED

It is unfortunate that the judgment has not yet been published in the United States, because the recital of the judgment against these individuals really shows what they were up to. This judgment is a very large document and I am not going to read it all, but I do think that there is no better way that you can see exactly what differentiates the conduct of these men from soldierly conduct than to see just what it was that was proved against them. From the beginning to the end of this case we made no contention that merely because a man was serving his country and the cause was not successful he should hang or be convicted. We recognized the realities of these things.

We were after the men who really promoted this war and caused all of this crime and suffering. Among those men certainly none was more of a leader in all fields than Hermann Goering. He was the man who brought all of the groups together into the

Nazi conspiracy. In many ways I think he was a much more influential and potent man than Hitler himself. He was the focus around which many men rallied who would not have rallied to Hitler, who after all was a vague sort of demagogue and a mystic. Goering was a practical fellow and I shall read to you what the Court found was proved at the risk of being tedious.

"Goering is indicted on all four counts. The evidence shows that after Hitler he was the most prominent man in the Nazi Regime. He was Commander-in-Chief of the Luftwaffe, Plenipotentiary for the Four Year Plan, and had tremendous influence with Hitler, at least until 1943 when their relationship deteriorated, ending in his arrest in 1945."

"He testified that Hitler kept him informed of all important military and political problems.

"From the moment he joined the Party in 1922 and took command of the street fighting organization, the SA. Goering was the adviser, the active agent of Hitler and one of the prime leaders of the Nazi movement. As Hitler's political deputy he was largely instrumental in bringing the National Socialists to power in 1933, and was charged with consolidating this power and expanding German armed might. He developed the Gestapo, and created the first concentration camps, relinquishing them to Himmler in 1934, conducted the Roehm purge in that year, and engineered the sordid proceedings which resulted in the removal of von Blomberg and von Fritsch from the Army. In 1936 he became Plenipotentiary for the Four Year Plan, and in theory and in practice was the economic dictator of the Reich. Shortly after the Pact of Munich, he announced that he would embark on a five-fold expansion of the Luftwaffe, and speed rearmament with emphasis on offensive weapons.

"Goering was one of the five important leaders present at the Hozsbach Conference of 5 November 1937 and he attended the other important conferences already discussed in this Judgment."

As I say, it is very hard to separate these particular things from the evidence of the general conspiracy.

"In the Austrian Anschluss, he was indeed the central figure, the ringleader. He said in Court:

'I must take 100% responsibility. . . . I even overruled objections by the Fuehrer and brought everything to its final development.' In the seizure of the Sudetenland, he played his role as Luftwaffe chief by planning an air offensive which proved unnecessary, and his role as a politician by lulling the Czechs with false promises of friendship. The night before the invasion of Czechoslovakia and the absorption of Bohemia and Moravia, at a conference with Hitler and President Hacha he threatened to bomb Prague if Hacha did not submit. This threat he admitted in his testimony.'

And he admitted it was unnecessary from any military point of view.

"Goering attended the Reich Chancellery meeting of 23 May 1939"—that, you know, is merely six months before the war began—"when Hitler told his military leaders 'there is, therefore, no question of sparing Poland,' and was present at the Obersalzberg briefing of 22 August 1939. And the evidence shows he was active in the diplomatic maneuvers which followed. With Hitler's connivance, he used the Swedish businessman Dahlerus, as a go-between to the British, as described by Dahlerus to this Tribunal, to try to prevent the British Government from keeping its guarantee to the Poles.

"He commanded the Luftwaffe in the attack on Poland and through the aggressive wars which followed.

"Even if he opposed Hitler's plans against Norway and the Soviet Union, as he alleged, it is clear that he did so only for strategic reasons: once Hitler had decided the issue, he followed him without hesitation. He made it clear in his testimony that these differences were never ideological or legal. He was 'in rage' about the invasion of Norway, but only because he had not received sufficient warning to prepare the Luftwaffe offensive. He admitted he approved of the attack: 'My attitude was perfectly positive.' He was active in preparing and executing the Yugoslavian and Greek campaigns, and testified that 'Plan Marita,' the attack on Greece, had been prepared long beforehand. The Soviet Union he regarded as the 'most threatening menace to Germany,' but said there was no immediate military necessity for the attack. Indeed, his only objection to the war of aggression against the USSR was its timing; he wished for strategic reasons to delay until Britain was conquered. He

testified: 'My point of view was decided by political and military reasons only.'

"After his own admissions to this Tribunal, from the positions which he held, the conferences he attended, and the public words he uttered, there can remain no doubt that Goering was the moving force for aggressive war second only to Hitler. He was the planner and prime mover in the military and diplomatic preparation for war which Germany pursued."

I shall not go into a recital of the war crimes and the crimes against humanity of which Goering was guilty. You followed those proceedings closely enough to know he was the prime mover of many of the persecutions and of the war crimes. I will come to a man who was less involved in the politics of the thing than was Goering. That is Keitel. Keitel was a subject of considerable controversy among the German military men. He was described by various of them as a "yes man," put into his position for the purpose of agreeing with Hitler. Certainly he always did finally agree with Hitler. He initiated many of the steps which Hitler took. He was described as a weak man by some of the other generals who were prisoners of war, who felt that he was promoted solely to serve the purposes of the Nazi regime. But the evidence showed—and if I have time I will point to some of his documents to indicate the nature of the evidence—that his activity went far beyond being a planner of merely military steps necessary to protect Germany's interest.

He was active in promoting the political phases of aggression. He received the golden party emblem from the Nazi Party, and he was the beneficiary of the very foul moves against von Blomberg and von Fritsch by which this clique came into power in the German military hierarchy.

Perhaps it would help if I explained first, rather than later, how this group which ultimately conducted the war got rid of some of

the men in Germany who were opposed to their aggressive plans. It was all told in great detail in the evidence. Some of it was told by other military men; some of it was told by civilians; a good deal was told by a former officer of the Gestapo. Von Blomberg, Minister of War, was not in favor of the extreme Nazi plans of aggression. He was in favor of rearming Germany so that Germany could cope with any possible enemy, and he was moving in the direction of a moderate rearmament of Germany.

But when he failed to go along with all the plans, the Nazi crowd, both military and civilian, planted in von Blomberg's office a prostitute who proceeded to marry von Blomberg. That was the plan from the beginning. The wedding was a widely advertised event, and Hitler attended. The Nazi papers published the fact that Hitler was present at the wedding and then they published her license as a licensed prostitute. The pretense that Hitler had thus been humiliated enabled them to get rid of Von Blomberg. An amusing sidelight was that after it was testified she was licensed in seven cities, she made a statement to the newspapers that she was not a prostitute in seven cities, that she was rarely out of Berlin.

Van Fritsch was another military man who did not sympathize with the Nazi plans and who thought their plans were going to lead to war. What did they do with him? They charged him with being a homosexual and held a trial at which Goering presided, one of the most farcical trials that could be imagined. They got rid of von Blomberg and they got rid of von Fritsch, and everybody on the outside knew when those moderates were driven out and when men like Keitel and Jodl came to the fore it meant the Nazi plan for aggression was going to be a success. It is against that background that

you have to view the activities of Keitel and Jodl.

THE CASE AGAINST KEITEL

I return to the judgment as to the specific findings on Wilhelm Keitel.

"Keitel attended the Schuschnigg conference"—this is in connection with the Austrian Anschluss—"in February 1938 with two other generals. Their presence, he admitted, was a 'military demonstration,' but since he had been appointed OKW Chief just one week before he had not known why he had been summoned. Hitler and Keitel then continued to put pressure on Austria with false rumors, broadcasts and troop manoeuvres. Keitel made the military and other arrangements and Jodl's diary noted 'the effect is quick and strong.' When Schuschnigg called his plebiscite, Keitel that night briefed Hitler and his generals, and Hitler issued 'Case Otto' which Keitel initialed.

"On 21 April 1938 Hitler and Keitel considered making use of a possible 'incident,' such as the assassination of the German Minister at Prague, to preface the attack on Czechoslovakia. Keitel signed many directives and memoranda on 'Fall Gruen,' including the directive of 30 May containing Hitler's statement: 'It is my unalterable decision to smash Czechoslovakia by military action in the near future.' After Munich, Keitel initialed Hitler's directive for the attack on Czechoslovakia, and issued two supplements. The second supplement said the attack should appear to the outside world as 'merely an act of pacification and not a warlike undertaking.' The OKW Chief attended Hitler's negotiations with Hacha when the latter surrendered.

"Keitel was present on 23 May 1939 when Hitler announced his decision 'to attack Poland at the first suitable opportunity.' Hitler had said on 23 May 1939 he would ignore the neutrality of Belgium and the Netherlands, and Keitel signed orders for these attacks on 15 October, 20 November, and 28 November 1939. Orders postponing this attack 17 times until spring 1940 all were signed by Keitel or Jodl.

"Formal planning for attacking Greece and Yugoslavia had begun in November 1940. On 18 March 1941 Keitel heard Hitler tell Raeder complete occupation of Greece was a prerequisite to settlement, and also heard Hitler decree on 27

March that the destruction of Yugoslavia should take place with 'unmerciful harshness.'

"Keitel testified that he opposed the invasion of the Soviet Union for military reasons, and also because it would constitute a violation of the Non-aggression Pact. Nevertheless he initiated 'Case Barbarossa,' signed by Hitler on 18 December 1940, and attended the OKW discussion with Hitler on 3 February 1941. Keitel's supplement of 13 March established the relationship between the military and political officers. He issued his timetable for the invasion on 6 June 1941, and was present at the briefing of 14 June when the generals gave their final reports before attack. He appointed Jodl and Warlimont as OKW representatives to Rosenberg on matters concerning the Eastern Territories."

And the Rosenberg administration of the Eastern Territories, in which Keitel was found to have had a part is elsewhere found to be one of the most atrocious chapters in human history.

"On June 16 he directed all army units to carry out the economic directives issued by Goering in the so-called 'Green Folder,' for the exploitation of Russian territory, food and raw materials."

The war crimes of which Keitel is convicted should be of interest.

"On 4 August 1942 Keitel issued a directive that paratroopers were to be turned over to the SD."

The judgment does not at this point go on to say, but it elsewhere appears that this was equivalent to death.

"On 18 October Hitler issued the Command Order which was carried out in several instances. After the landing in Normandy, Keitel reaffirmed the order, and later extended it to Allied missions fighting with partisans. He admits he did not believe the order was legal but claims he could not stop Hitler from decreeing it.

"When on 8 September 1941, OKW issued its ruthless regulations for the treatment of Soviet POW's, Canaris wrote to Keitel that under international law the SD should have nothing to do with this matter. On this memorandum in Keitel's handwriting, dated 23 September and initialed by him, is the statement: 'The objections

arise from the military concept of chivalrous warfare. This is the destruction of an ideology. Therefore I approve and back the measures.' Keitel testified that he really agreed with Canaris and argued with Hitler, but lost. The OKW Chief directed the military authorities to cooperate with the Einsatzstab Rosenberg in looting cultural property in occupied territories.

"Lahousen testified that Keitel told him on 12 September 1939, while aboard Hitler's headquarters train, that the Polish intelligentsia, nobility and Jews were to be liquidated. On 20 October, Hitler told Keitel the intelligentsia would be prevented from forming a ruling class, the standard of living would remain low, and Poland would be used only for labor forces. Keitel does not remember the Lahousen conversation, but admits there was such a policy and that he had protested without effect to Hitler about it.

"On 16 September 1941, Keitel ordered that attacks on soldiers in the East should be met by putting to death 50 to 100 Communists for one German soldier, with the comment that human life was less than nothing in the East. On 1 October he ordered military commanders always to have hostages to execute when German soldiers were attacked. When Terboven, the Reich Commissioner in Norway, wrote Hitler that Keitel's suggestion that workmen's relatives be held responsible for sabotage would work only if firing squads were authorized, Keitel wrote on this memorandum in the margin: 'Yes, that is the best.'

"On 12 May 1941, five weeks before the invasion of the Soviet Union, the OKW urged upon Hitler a directive of the OKH that political commissars be liquidated by the Army. Keitel admitted the directive was passed on to the field commanders. And on 13 May Keitel signed an order that civilians suspected of offenses against troops should be shot without trial, and that prosecution of German soldiers for offenses against civilians was unnecessary. On 27 July all copies of this directive were ordered destroyed without affecting its validity. Four days previously he had signed another order that legal punishment was inadequate and troops should use terrorism.

"On 7 December 1941, as already discussed in this opinion, the so-called 'Nacht und Nebel' decree, over Keitel's signature, provided that in occupied territories civilians who had been accused of crimes of resistance against the army of occupation would be tried only if a death sentence

was likely; otherwise they would be handed to the Gestapo for transportation to Germany.

"Keitel directed that Russian POW's be used in German war industry. On 8 September 1942 he ordered French, Dutch and Belgian citizens to work on the construction of the Atlantic Wall. He was present on 4 January 1944 when Hitler directed Sauckel to obtain four million new workers from occupied territories.

"In the face of these documents Keitel does not deny his connection with these acts. Rather, his defense relies on the fact that he is a soldier, and on the doctrine of 'superior orders,' prohibited by Article 8 of the Charter as a defense.

"There is nothing in mitigation. Superior orders, even to a soldier, cannot be considered in mitigation where crimes as shocking and extensive had been committed consciously, ruthlessly and without military excuse or justification."

Time will hardly permit the reading of the judgment as against Jodl, Donitz and Raeder, but it shows a similar course of conduct. In each case the Tribunal took up and carefully considered every denial made by any defendant either of this testimony against him or of the documents. In some few instances documents were claimed to be capable of a different interpretation and in only two or three instances were any of the nearly 4,000 documents denied. These men were convicted, not on testimony by their enemies, they were convicted on their own signatures. Keitel's own lawyer at the conclusion of the testimony and when he summed up the case said to the Tribunal and wrote in his brief; "It is possible to meet some of the specific questions. It is impossible to shake the indictment as a whole."

Jodl, kept a diary, a very dangerous practice, and in it Jodl recited from time to time his participation in various of these crimes. I shall not have time to review the evidence at length, but I would like to point out to you a few samples of these documents just to show you the kind of evidence that was used, because I think the concrete act which

you bring forward against a man under an indictment is more helpful in understanding the indictment than the abstract phraseology of lawyers, which sometimes isn't too intelligible even to lawyers.

You will recall that against Keitel there was a finding that in the aggressive action toward Austria which did not result in war, he was active in its political as well as its military aspects. Document 1775-PS, which was in evidence and on which the Tribunal acted is signed by Keitel. I will read the part of it that shows what he was advising the Fuehrer.

"The OKW is asking the Fuehrer's decision, concerning the following proposals:

"Orders will be given immediately, after the detailed numbers and letters have been released by the Leader, for accomplishment."

One is unimportant.

"2. Spread false, but quite credible news, which may lead to the conclusion of military preparations against Austria."

He described the method by which the false news should be spread. In connection with this Jodl's diary showed that according to Jodl's entry of February 11 of 1938 Schuschnigg was being put "under heaviest political and military pressure."

"In the afternoon General K. asks Admiral C and myself to come to his apartment. He tells us that the Fuehrer's order is to the effect that military pressure by shamming military action should be kept up until the 15th."

You recall the proposal came from Keitel himself.

"Proposals for these deceptive maneuvers are drafted and submitted to the Fuehrer by telephone for approval."

And he recites the effect of them on Austria.

PLANS TO PROVOKE CAUSE FOR INVADING CZECHOSLOVAKIA

When aggressive action came against Czechoslovakia the participation of Keitel

and Jodl was political as well as military. As I have said, you have to interpret the specific acts against the background by which Keitel and Jodl got into power. The first of the summary of the discussions between Keitel and the Fuehrer on Czechoslovakia was this from Document 388-PS.

"1. Strategic surprise attack out of a clear sky without any cause or possibility of justification has been turned down as result would be hostile world opinion which can lead to a critical situation. . . .

"2. Action after a time of diplomatic clashes which gradually come to a crisis and lead to war."

That was the one they adopted.

"3. Lightning-swift action as the result of an incident (e.g. assassination of German ambassador in connection with an anti-German demonstration.)"

The proof was supplemented by oral testimony to show that they planned that anti-German rioting would be instigated including assassinating their own ambassador to give the provocation necessary for the war. Keitel then revised the plan, improved on it somewhat, and sent another draft to the Fuehrer. In the revised estimate of the possibilities he said: "Invasion without suitable obvious cause" is turned down therefore.

"Rather will the action be initiated either:

"a. After a period of increasing diplomatic clashes and tension, which is coupled with military preparations and is made use of to push the war guilt onto the enemy. Even such a period for tension preceding the war however will terminate in sudden military action on our part, which must come with all possible surprise as to time and extent, or

"b. By lightning-swift action as a result of a serious incident, through which Germany is provoked in an unbearable way and for which at least part of the world opinion will grant the moral justification of military action.

"b. Is militarily and politically the more favorable."

Then Jodl signed the following memorandum on the Czechoslovakia incident proposal:

"Operation (Aktion) Gruen will be set in motion by means of an 'incident' in Czechoslovakia which will give Germany provocation for military intervention. The fixing of the exact time for this incident is of the utmost importance.

"It must come at a time when weather conditions are favorable for our superior air forces to go into action and at an hour which will enable authentic news of it to reach us on the afternoon of X minus 1."

When they got ready for the aggressive war against Poland, Keitel made his own memorandum, Document 795-PS, in which he recited that he conferred with the Fuehrer and the Fuehrer had informed him that they "were to furnish Heydrich with Polish uniforms." Following the oral evidence through, Keitel furnished Heydrich, who was the head of the Gestapo, with the Polish uniforms. They dressed up some Polish concentration camp people in Polish uniforms and had the Polish concentration camp inmates make an attack on a German radio station, and that was the incident which provided the propaganda to show that Germany was provoked to war.

It is that sort of specific thing, which proved what these men were up to was not the mere planning of war on a military basis. Keitel and Jodl, Raeder and Donitz had all become parts of the Nazi effort to make a war where none existed before, to induce decisions to go to war and to create the fight. Time will not permit going into detail as to all of the evidence, of course. The War Department is publishing in eight volumes the documents which were used in evidence. It is a long task to summarize it, of course, I hope that a more adequate job of summarizing what was proved against military characters will be done by someone better able than I am to do it. I am only giving you a preview of what might be done if somebody who knew the military point of view much better than I do could go about this task.

So far as war crimes are concerned, there was very little effort made to contend that Germany lived up to the laws of war. In fact, Goering testified in substance not only that they didn't, but that they didn't expect to. It is a matter which I think calls for serious consideration on the part of the United States. I will read only an extract from Goering's testimony which shows you the attitude that the high Nazi command took on the rules of warfare. Goering testified:

"The Hague Convention was for land warfare. When I scanned it over on the eve of the Polish campaign I was reading the articles and I was sorry I had not studied them much sooner. If I had done so, I would have told the Fuehrer that with these rules as they had been put down paragraph by paragraph a modern war could not be waged, but that in a modern war with its technical improvements the stipulations of 1906 and 1907 would have to be changed in order to have a new type of warfare."

I am not so sure that Goering isn't right about it, and I am going to venture outside of my role to suggest that the subject needs serious consideration on the part of the United States. Certain countries are parties to these various agreements in reference to the rules of land warfare, the treatment of prisoners and the like; some countries are not. There is little doubt, I suppose, that if we were to have a war in which we should be on the opposite side of England, for example, prisoners of war would be treated pretty much as they are now, because that is the temper of the people. But if we were to become involved in a war with certain other nations, our men taken prisoners by them would not be treated according to the standards of these conventions, first, because they are not required to, not being parties to these conventions; second, because their standards of living are such if they tried to treat our prisoners of war as we treat prisoners of war,

I suppose their public opinion wouldn't stand for it. The rules would require them to treat the prisoners of war much better than their own people lived, and we could not expect them to do it—nor would they submit to inspection by a supervising power.

I think it is a serious question whether we should not reconsider the provisions of these agreements in the light of modern conditions to determine just where we might stand in event another war breaks upon mankind. We may depend upon it that some of the potential enemies of the United States would not be governed by these agreements. I think it is a serious question whether these rules should be allowed to stand in their present conditions in the face of the challenge which Goering throws out, and Goering is not the only man who has that same view of the impossibility of waging total war within these obsolete rules.

NAZIS REALIZE HORRORS OF WAR TOO LATE

The attitude of the Nazi in Germany toward the war simply isn't the same as the attitude even of the toughest of Americans or the toughest of the other western peoples. They simply do not see in the sort of things they did the same wrong that we would see in them. They haven't the same standard of treatment of each other. They saw nothing very horrible about the war until it hit them.

One of the most illuminating things that happened in Nuremberg was a little cross-examination of Ribbentrop before the trial began. He sent me a letter which looked to me as though it had been written for propaganda purposes eventually, and I called him in to have a stenographic report of a few questions about it in order to deflate it in case it should ever be published for such purposes. In the course of the interrogation he kept

saying, "This awful war! Oh, this terrible war!" I stood it about as long as I could and finally said, "Ribbentrop, when did this war begin to impress you as an awful war?" I thought he would at least smile, but he was as solemn as an owl. There wasn't a spark of humor about him, and he said in all seriousness, "I will tell you. It was when I heard the Americans had landed in Africa."

That is what impresses them as awful about the war, and it was not an awful war in any of its aspects up until it began to go wrong for them.

In prosecuting them on the charge of aggressive war-making there has never been the slightest thought that we wanted to or were making criminal the ordinary work of planning a nation's defense. I have no doubt that there are plans as to what would be done by the United States in almost every eventuality that could be conceived. I hope there are such plans. If there are not such plans, I would think somebody has been guilty of negligence. That nations may find themselves engaged in wars, of course, is a contingency which everybody has to reckon with. That it is the business of the professional soldier to be ready to protect his country we take for granted. That it is his business to embroil his country in a war we cannot admit, and that is the essence of the charge against these German defendants.

They not only planned, but they incited a nation to war. Our position I think was made fairly plain through the trial. The judgment as to the charges against the General Staff I think were read to you yesterday and I will not go into them again. The position we took, and which was the position of the United States, was stated in my opening address, and copies of that are available. In the case against all the different elements among the defendants was brought together, against the businessmen, the finan-

ciers, the politicians, the military men. The whole group is there treated together and the case on the facts together with the legal propositions on which we were proceeding more completely set forth than in my closing address. As against the military men this was the position which the United States took officially at the opening and adhered to throughout the trial:

"We have also accused as criminal organizations the High Command and the General Staff of the German Armed Forces. We recognize that to plan warfare is the business of professional soldiers in every country. But it is one thing to plan strategic moves in the event war comes, and it is another thing to plot and intrigue to bring on that war. We will prove the leaders of the German General Staff and of the High Command to have been guilty of just that. Military men are not before you because they served their country. They are here because they mastered it, along with these others, and drove it to war. They are not here because they lost the war but because they started it. Politicians may have thought of them as soldiers, but soldiers know they were politicians. We ask that the General Staff and the High Command, as defined in the Indictment, be condemned as a criminal group whose existence and tradition constitute a standing menace to the peace of the world."

DEFENSE OF SUPERIOR ORDERS

A good deal has been said about the defense of superior orders because that is the position taken by all of the military men. You will note that we didn't proceed against men who were far down in the chain of command. I think the defense of superior orders would be recognized, of course, in many, many circumstances. It can hardly be recognized when you are dealing with the superiors themselves, men on the level of these, of the General Staff. But on the defense of superior orders I will show you the position which the United States took, again quoting from the opening which also was the opening on behalf of all four powers:

"The Charter recognizes that one who has committed criminal acts may not take refuge in superior orders nor in the doctrine that his crimes were acts of states. These twin principles working together have heretofore resulted in immunity for practically everyone concerned in the really great crimes against peace and mankind. Those in lower ranks were protected against liability by the orders of their superiors. The superiors were protected because their orders were called acts of state. Under the Charter, no defense based on either of these doctrines can be entertained. Modern civilization puts unlimited weapons of destruction in the hands of men. It cannot tolerate so vast an area of legal irresponsibility.

"Even the German Military Code provides that:

"If the execution of a military order in the course of duty violates the criminal law, then the superior officer giving the order will bear the sole responsibility therefor. However, the obeying subordinate will share the punishment of the participant: (1) if he has exceeded the order given to him, or (2) if it was within his knowledge that the order of his superior officer concerned an act by which it was intended to commit a civil or military crime or transgression."

"Of course, we do not argue that the circumstances under which one commits an act should be disregarded in judging its legal effect. A conscripted private on a firing squad cannot expect to hold an inquest on the validity of the execution. The Charter implies common sense limits upon immunity. But none of these men before you acted in minor parts. Each of them was entrusted with broad discretion and exercised great power. Their responsibility is correspondingly great, and may not be shifted to that fictional being, 'the State,' which cannot be produced for trial, cannot testify, and cannot be sentenced."

There have been objections, too, that we were proceeding against men for aggressive acts without a sufficient definition of aggression. It is true that the Charter did not define aggression. The reason it did not define aggression is that it is a very difficult thing to define and it wasn't necessary for the purposes of this case. On behalf of the four powers at the opening, I took the position that there was definition sufficient for the

purposes for that trial, in other sources of international law and in common usage of the terms. And we cited the Litvinov Agreement by which Russia undertook not to aggress against Estonia, Latvia, Turkey and Afghanistan. The definition is a good one and the application is not difficult. Quoting again from my opening statement:

"An 'aggressor' is generally held to be that state which is the first to commit any of the following actions:

- (1) Declaration of war upon another State;
- (2) Invasion by its armed forces, with or without a declaration of war, of the territory of another State;
- (3) Attack by its land, naval, or air forces, with or without a declaration of war, on the territory, vessels, or aircraft of another State;

"And I further suggest that it is the general view that no political, military, economic, or other considerations shall serve as an excuse or justification for such actions; but exercise of the right of legitimate self-defense, that is to say, resistance which is to an act of aggression, or action to assist a state which has been subjected to aggression, shall not constitute a war of aggression."

There is an instructive document which I trust will be made available in printed form at some time. It is the argument made by General Telford Taylor for the conviction of the German General Staff and High Command as a "Group" or "organization." The conviction of the General Staff, as you know, failed because it was held not to be a sufficiently cohesive group to warrant a declaration of criminality as a group. The argument made by General Taylor, will show clearly that there was no purpose to brand the General Staff as criminal except as the General Staff had departed from the normal course of military planning and had entered into the political effort to bring on the war. There was no purpose here to convict or brand as criminal the entire profession of arms. It is very significant that while the

Tribunal said it could not convict the German General Staff as a criminal organization, it went on to say of the General Staff:

"Although the Tribunal is of the opinion that the term 'group' . . . must mean something more than this" General Staff was shown to be, "it has heard much evidence as to the participation of these officers in planning and waging aggressive war, and in committing war crimes and crimes against humanity. This evidence is, as to many of them, clear and convincing.

"They have been responsible in large measure for the miseries and suffering that have fallen on millions of men, women and children. They have been a disgrace to the honorable profession of arms. Without their military guidance the aggressive ambitions of Hitler and his fellow Nazis would have been academic and sterile. Although they were not a group falling within the words of the Charter, they were certainly a ruthless military caste. The contemporary German militarism flourished briefly with its recent ally, National Socialism, as well as or better than it had in the generations of the past.

"Many of these men have made a mockery of the soldier's oath of obedience to military orders. When it suits their defense they say they had to obey; when confronted with Hitler's brutal crimes which are shown to have been within their general knowledge, they say they disobeyed.

"The truth is they actively participated in all these crimes, or sat silent and acquiescent, witnessing the commission of crimes on a scale larger and more shocking than the world has ever had the misfortune to know. This must be said.

"Where the facts warrant it, these men should be brought to trial so that those among them who are guilty of these crimes should not escape punishment."

WEHRMACHT BETTER THAN SS

It is fair to say, by and large, that the Wehrmacht was a far more decent organization than the more Nazified military formations. There is nothing in the history of modern warfare that has ever come to my attention that compares with the conduct of the SS and the purely Nazi formations. I think the worst of the military men who were

brought up in the old military tradition, it would not be unfair to say, were better than the best of the Nazis, the purely Nazi formations. I know that there is great admiration in many circles for the military proficiency of the German General Staff, but these men who came into power by throwing the men of the Von Blomberg and Von Fritsch type out, and forcing others into retirement certainly didn't represent the best even in the German military tradition.

I am frank to say it always annoys me greatly to hear the American or the British or the French military profession compared to the German of World War II when I know the record of what the German has done. A great many people have said, "Well, you have set up a rule that means that if we lose a war we can be tried." That is true, gentlemen. If you lose a war I think you will be lucky even to be tried. These men have had what they never gave anybody else; they have had a chance to be heard, and the judgment shows that the Tribunal has considered most carefully every argument they can make for their individual innocence, that is, the opportunity was given to them which was never given to men in their positions before. The precedent we have set is

not that fallen enemies may be killed—that is old—the precedent is that they shall not be killed without proof of crime and fair hearings.

The trial was not an effort wholesale to condemn men because they fought for their country. It was an effort to determine whether they were guilty of crime and to hear every argument they could make in support of their conduct. I think it is extending them a decency, extending an opportunity which hasn't been customary to extend before. You will see that the Tribunal in several instances, particularly with the naval officers, weighed their arguments and gave them weight, and gave them sentences proportionate to the lesser degree guilt they found.

Instead of fearing the fact that you might have a trial if you lose a war—and I hope to God you never will—I think the military profession ought to feel grateful that hereafter if this precedent is followed men will not be shot merely because they have lost a war; they will be brought in, given an opportunity to explain their relations and positions, and at least before they are executed will have had an opportunity to be heard. That is something in advance of the art.

* * * *

WANTED: Issue of Summer 1937

The American Military Institute has received numerous requests for complete volumes of back copies of *MILITARY AFFAIRS*. Unfortunately, one issue, Volume I, Number 2 (Summer, 1937), is entirely missing from the stock of old copies. Members who possess unbound copies of this issue are urged to forward them to the Institute for which they will receive two dollars per copy. Upon receipt of these copies they will be utilized to make up complete sets for binding and consequent permanent use in War Department libraries and other valuable reference locations where they will be available to an unrestricted number of people.

ROCKETS IN EARLY AMERICAN WARS

BY MAJOR PAUL D. OLEJAR

If any one weapon symbolizes the swift destruction of World War II, it is the rocket. All major participants used rockets. By end of the war, the German V-2 weapon was known to all, and the Russian rocket barrages preceding assault were widely cited. American soldiers, sailors, and marines fired millions of rockets at the enemy. Tactical use advanced rapidly. Aircraft rockets, the bazooka, the naval rocket gunboats, and automatic and multiple rocket launchers for ground use widened horizons. Just before the war ended, the Army began training a new-type combat team, the motorized rocket unit equipped with multiple-tube launchers. It was intended to further ground use of rockets, which already had important rôles in air attacks, in amphibious landings, and in submarine hunting. The total advance was spectacular, starting from scratch after war began.

And yet, rocket warfare is not new in American military annals. Just about 100 years ago, special American rocket troops campaigned actively in the War with Mexico. Led by officers whose names are synonymous with military success, these rocketeers participated in the rugged campaign of 1847 from Vera Cruz to Mexico City. Our experience with rockets goes back even farther, to the War of 1812, and perhaps a few years earlier to Indian campaigns in Florida. The British used them in the campaign that led to the burning of the city of Washington and the bombardment of Fort Mc-



PAUL D. OLEJAR

Henry at Baltimore in 1814. We commemorate that experience today in our National Anthem when we sing of "the rockets' red glare,"

It is true that the rockets used today are different and undoubtedly far superior to those of 100 years ago. But the difference probably is not as great as that between the smooth-bore muzzle-loading cannon of the War with Mexico and the modern rapid-firing breech-loading rifled guns of today.

Although artillery use continued to advance, rocket use languished for eighty years. Various factors contributed to this decline. But in their heyday during early American wars, rockets had an interesting though erratic career.

The "fireworks" type of rocket entertaining Fourth of July throngs is familiar, but the rocket as an implement of war has a misty history. The Chinese generally are credited with adapting it to battle and recorded instances of its use date back to the thirteenth century. The rocket probably is older than the gun. For some reason, however, it failed to gain popularity and it is almost unmentioned in military annals for several centuries. Among early commentators on rockets were Biringucci Vanuccio, whose *De la pirotechnia* appeared in 1540, and J. Hanzelet, whose *Traité des militaires* appeared in 1598. Hanzelet presented a method of employing the rocket in war. Casimir Simienowicz, lieutenant general of ordnance to the King of Poland, devoted considerable attention to the subject in his book on *The Great Art of Artillery*, translated into the English language in 1729. But his rockets admittedly were erratic incendiaries, uncertain as to performance.¹ Another experimenter was General Desaguliers of the British army.

At the time Washington's little army was wresting American independence, western Europe was becoming excited over reports of the success with rockets achieved in India by native armies. Some years later, the British troops at Seringapatam, in India, were thrown into confusion by salvos of explosive containers rigged on long bamboo sticks, hurled by a special rocket corps of Hyder Ali, the Prince of Mysore. When accounts of this battle of 1799 reached England, Colonel William Congreve (later knighted) of the British army began a series of experiments until he developed

similar missiles which became a vogue in several European armies.

The rocket was essentially a cylinder of compressed powder that was made "lazy" by altering the normal gunpowder proportions of charcoal, sulphur, and saltpeter to provide a slower rate of burning. Congreve first experimented with the pasteboard sky-rocket type and in time improved its range to about 2,000 yards. Discarding paper in favor of iron, he improved the Indian adaptations and soon had various types and sizes of incendiary and explosive missiles ranging up to 32 pounds in weight. Since the ordinary skyrocket at best is unsteady in flight, its accuracy impaired by the off-center guiding stick, Congreve developed better balance by placing the stick in the center of the rocket's axis. To the iron tube he attached the "head" consisting of the incendiary carcass or explosive bomb. In time he had a range of about 3,000 yards, exceeding that of most artillery pieces of the day. His 12-pound rocket could penetrate a 20-foot solid earthwork at 1,200 yards and then burst. A 12-foot sodded work was considered safe from 12-pounder field-gun missiles.²

Discharge of the rocket was obtained by igniting the powder at one end. To increase the burning surface, there was a conical hole in the powder, called the core. The burning powder changed into highly compressed gas which escaped through the exhaust nozzle at high speed. Reaction of the escaping gas gave the impetus—that is, Newton's Third Law of Motion: "For every action there is an equal and opposite reaction," governed. This basic principle governs modern rockets, which differ from

¹ Casimir Simienowicz, *The Great Art of Artillery*, translated from the French by George Shelvocke (London, 1729), "Volume" III, p. 130 et seq.

² Lt. Col. Calvin Goddard, "Rockets," *Army Ordnance*, XIX (Mar.-Apr. 1939), 303.

those of a hundred years ago only in engineering design, improvement of explosive qualities, and tactical application.

Congreve rockets had their first real test in 1806 when the French city of Boulogne was partly burned by a volley of 200 rockets. Then followed the burning of Copenhagen by 25,000 rockets discharged from war vessels in 1807. In the battles of Leipzig in 1813 and of Waterloo in 1815, rockets again were factors.³

Despite glowing predictions, striving on the part of European armies to perfect the new missiles, and organization of separate rocket corps in Austria, England, and Russia, evidence is lacking that the American army joined in the scramble. However, rockets were tested, and used to some extent.

Trials were made in 1813. Some were sent to the northern frontiers, but apparently they were not used although the American experimenters succeeded in giving them ranges equal to British rockets of similar dimensions. The Ordnance Department reported: "The only serious difficulty met with in the trials of Rockets was, the inaccuracy of their flight, at long ranges. This feature was not peculiar to our Rockets, but was found to attend those which the British used against us."⁴

The first recorded British use of rockets against American forces came during a naval engagement on June 1, 1814, during the War of 1812. British warships had driven American defenders from the lower portions of Chesapeake Bay and Commo-

dore Joshua Barney's tiny fleet of barges charged with guarding the area had taken refuge in the mouth of the Patuxent River. A British barge advanced and discharged the new Congreve rockets, which did no damage. What impressed Commodore Barney, however, was the fact that their range exceeded that of his 24-pounder guns. On June 8, Barney's barges were in St. Leonard's Creek, a better refuge, and British rockets again were discharged while shell from American guns fell short. A rocket killed one man and caused injuries to three more on one barge. The Americans were disconcerted, not because of rocket damage, but by the new kind of fighting which brought novel missiles whizzing about their heads. Barney sent an unexploded rocket as a curiosity to the Secretary of War. It had a stick 15 feet long. On June 10, when the main British attack was undertaken, rockets again played a part, setting one American barge afire, while shellfire sank another, but the Americans more than held their own.⁵

On June 26 the American barges, seeking escape from their position, attacked with support tendered by two long 18-pounder guns brought from Washington by Colonel Decius Wadsworth, Commissary General of Ordnance, who commanded the land battery during the battle, and the blockade was lifted.

On August 24 at Bladensburg, where the American troops had lined up to defend the city of Washington, a flight of the ungainly Congreve rockets caused two regiments to break and flee in disorder. The American flank was turned and the burning of Washington followed. Three weeks

³ *Ibid.*, XX (July-Aug., 1939), p. 47.

⁴ Lt. Col. of Ordnance G. Talcott to Secretary of War J. R. Poinsett, April 8, 1839, Office of the Chief of Ordnance (abbreviated hereafter as O. C. O.), copybooks of "Letters to the War Department," 1812-1889, vol. 7, p. 72, National Archives.

⁵ Hubert Footner, *Sailor of Fortune: The Life and Adventures of Commodore Joshua Barney, U. S. N.* (New York, 1940), p. 268.

later the British fleet attacked stout little Fort McHenry at Baltimore, and again rocket-firing warships were among the armada. Their missiles caused little damage, but helped to inspire Francis Scott Key, who wrote what later became our National Anthem.

Perhaps it is significant to note that both at St. Leonard's Creek and at Bladensburg,⁶ the Commissary General of Ordnance was present in command of combat troops. That position had been established by act of May 14, 1812, to provide munitions for the army. Since Colonel Wadsworth also was the first chief of ordnance under the act of February 8, 1815, which is the basis of the Ordnance Department of today, his first-hand experience in this campaign may have influenced later ordnance receptiveness to rocket use.

Progress apparently was slow. There were strong overtones of public opposition. *Niles' Weekly Register* in August, 1814, on the heels of the British campaigns, stated unequivocally that rockets were "unfair" and it was cruel to use them. The argument was not entirely one-sided. The same publication in October, 1814, quoted the *Boston Gazette* as suggesting that a rocket battery be erected either on Fort Warren or Fort Independence.⁷

At any rate, Lt. Col. George Bomford, Wadsworth's successor, reporting November 15, 1822, to the Secretary of War on his first year's activities, stated that 145 rockets had been fabricated at ordnance arsenals.⁸ Almost yearly thereafter rockets were men-

tioned, though manufacture was not extensive. However, evaluation of the number fabricated should be judged against the quantities of arms and ordnance stores then being produced for our army, which seldom numbered over 8,000 men, and not against the astronomical numbers associated with modern war production. In a report of December 24, 1835, Colonel Bomford listed among ordnance stores on hand a Congreve rocket case at Fort Monroe, a rocket carriage at Champlain Arsenal, and some 650 rockets of various kinds at other arsenals. These varied from 4½ inch down to 1 and 8/10 inch. Rocket pots and rocket caps also were listed.⁹ However, there is difficulty in segregating the war rockets from signal or "fireworks" rockets.

The cautious approach in the United States was in contrast to the vigorous advocacy of rockets in Europe during this period. Congreve sanguinely imagined that they would completely alter the practice of artillery and urged that all arms—cavalry, infantry, and artillery—be supplied with the missiles, drawing elaborate plans and diagrams for their employment.¹⁰ Advantages of the rockets, he stated, were that their magnitude was unlimited (many weighed 300 pounds and were 10 feet high, and rockets of 1000 pounds were reported); they were easily portable; there was complete freedom from recoil; discharge was more rapid than possible with cannon; and the effects of fire in addition to the rocket propulsive force were devastating and terrifying. Their eccentricity he believed an

⁶ Ralph Robinson, "Use of Rockets by the British," *Maryland Historical Magazine*, XL (Mar. 1945), 3.

⁷ *Ibid.*, p. 5.

⁸ *American State Papers* (38 vols., Washington, 1832-1861), class V: "Military Affairs," vol. II, p. 462.

⁹ U. S. House of Representatives, *Executive Documents*, 24 Cong., 1 sess., no. 44, pp. 16, 78, 110.

¹⁰ Maj. Gen. Sir William Congreve, *A Treatise on the General Principles, Powers and Facility of Application of the Congreve Rocket System as Compared with Artillery* (London, 1827).

advantage—the enemy could not judge where the explosion would take place. His lengthiest arguments stressed the economy of rockets compared to artillery.

Rockets ordinarily were launched from grooved channels or tubes; but often they were simply laid on the ground, connected by means of a quick-match and fired in what was called a "ground volley."¹¹ Congreve devised "volley carriages," on which were mounted 20 tubes, so that 20 rockets could be fired simultaneously,¹² but the rocket carriage was not used greatly.

Apparently there came a lull in American thought concerning rockets, but in 1839 the Ordnance Department informed the Secretary of War that a series of experiments had been ordered at Washington Arsenal. These were to start with "those of three inches diameter and proceeding to those of larger dimensions, when the proper strength of cases and the compositions to give a suitable range shall have been found by trials."¹³

Nineteen months later the department reported that "the machines provided for the construction of War Rockets have been found to fulfil the required conditions, and it only remains, to fix the details of their fabrication by a series of trials, in order to realize all the advantage which such projectiles are capable of affording."¹⁴

The army as a whole was aware of rockets. A book issued in 1842 for use of the cadets at the United States Military Academy devoted seven of its forty-one pages to rockets. The descriptions therein re-

flected the influence of the French army which still was looked upon in many quarters as the acme of military art.¹⁵ From this book the cadets learned that "the gas generated by the combustion of the composition, in its effort to expand, escaping at the orifice, acts upon the air, the reaction of the air causes the case to move in a direction opposite to the action of the gas and with a velocity corresponding to its intensity and the weight of the case."¹⁶ This may have been in keeping with the popular theory, but we know that it is an imperfect description of the principle of propulsion, for a rocket can readily travel in a vacuum, or underwater, or in the stratosphere, as witness the V-2 bombs of Germany.

The text noted that English use of the Congreve rockets was successful "on several occasions, but after the first panic was over, they were viewed with less dread. . . . In most instances shells and bombs would answer a better purpose. . . . There are some edifices which will resist a bomb and are still too weak to overcome a falling rocket."¹⁷

The iron rocket cases of the day were lined with paper to prevent the composition from coming in contact with the iron.

Important evidence of ordnance interest in rockets came in 1841. In March of that year a report to the Senate by Secretary of War J. R. Poinsett forwarded the findings of a special board of ordnance officers which had spent the preceding year in Europe to observe the kinds of ordnance used,

¹¹ J. Scoffern, *Projectile Weapons of War and Explosive Compounds* (London, 1859), p. 172.

¹² Congreve, p. 38.

¹³ G. Talcott to Secretary of War, Apr. 8, 1839, *loc. cit.*, p. 72.

¹⁴ G. Talcott to Secretary of War, Nov. 30, 1840, *ibid.*, p. 205.

¹⁵ Joseph Bem, an artillery officer, described the manufacture of fire rockets, undertaken in 1818 and 1819, in a book entitled *Notes sur les fusées incendiaires*, which was translated into German and published in Munich in 1820.

¹⁶ *Military Pyrotechny* (West Point, N. Y., 1842), p. 35.

¹⁷ *Ibid.*

the manner of procurement and manufacture. Objective of the board was to suggest means of improving the system of artillery and many items were brought back including cannon, muskets, sabres, drawings, plans, and books collected in England, France, Prussia, and Sweden. But in the closing paragraphs of its report this board—consisting of Major R. L. Baker, Captain A. Mordecai, and Captain Benjamin Huger of the Ordnance Department and Major W. Wade, a former army officer—there appeared a section entitled “War Rockets.”¹⁸ It read:

In the arsenal at Metz the board saw cases of war rockets in progress of construction, and had an opportunity to examine them minutely. They are exactly similar to samples heretofore obtained. An experiment had been tried lately with these rockets, which had given favorable results.

It was thought they might be useful in the defense of a place; and a battery, representing battery in breach, with three embrasures, was erected on the crest of a covert-way near a bastion of the place. Thirty war rockets were fired at this battery from the main work, a distance of about 80 yards, and completely destroyed the battery.

The rockets were $2\frac{1}{2}$ inches diameter. A pot, of rather larger diameter, was fitted over the head. This pot was about eight inches long, and terminated with a conical end, all made of sheet iron, and a small fuze communicated fire to a charge of powder in the pot. The rockets all took effect at this short distance, penetrating the gabions and fascines, and, by the explosion, throwing out the gabions and destroyed the battery.

The officers were much struck with the effect of these rockets in this first trial, and intended to prosecute the experiment further.

In all the countries visited, war rockets are made on a more or less limited scale. All nations make a secret of the details of their

manufacture, but the secret appears known to all nations.

The board's report certainly must have contributed to official receptiveness when two factors created the proper conditions for more extensive rocket use. These were the War with Mexico, and the improvement in accuracy and efficiency of the war rocket developed by Mr. William Hale, of Woolwich Arsenal, England.

In the meantime, rockets were being made in slightly greater quantity. There were 250 rockets issued to American troops in 1843, 160 in 1844, and 544 in 1845.¹⁹

The following year the Ordnance Department's attention was called to the new Hale rockets and interest mounted.

Hale's improvements were concerned with obtaining greater stability in flight. Early attempts to keep a rocket on its course took such forms as attaching a chain to counterbalance the long guiding stick. Congreve improved stability by screwing the guiding stick into a hole in the center of the base plate of the rocket, thus shifting the weight to the longitudinal axis of the missile. However, the stick was a serious drawback in operations because of its length and dead weight. It was soon foreseen that accuracy of flight could be given only by imparting a rotary motion to the rocket. First experimenters attached wings or vanes to the case of the rocket. These failed. Hale found a way to rotate the rocket in flight without the vanes. He placed vents in the base of the rocket case at an angle to the periphery. Therefore, any flame escaping through them must impart rotary motion to the whole rocket. These tangential holes, however, allowed only a small portion of the gas to

¹⁸ U. S. Senate, *Executive Documents*, 26 Cong., 2 sess., no. 229, p. 109.

¹⁹ Senate, *Ex. Docs.*, 28 Cong., 1 sess., no. 1, p. 260; House, *Ex. Docs.*, 28 Cong., 2 sess., no. 2, p. 267; 29 Cong., 1 sess., no. 2, p. 414.

escape, the principal exit being the center hole where the stick, in an ordinary Congreve rocket, would have been placed.²⁰ Thus the rocket received its normal propulsive power, but the gas escaping through the angled vents made it rotate along its longitudinal axis in the same manner as a rifle bullet spins.²¹ Later Hale included small metal vanes along the exhaust nozzle, but this change apparently did not occur until after the American army had begun to use his rockets. It is interesting to note that these principles are characteristic of many military rockets used today.

Further, there was developed in this general period and put into use the hydrostatic pressing method of filling rocket cases, and gradually the old monkey ramming method was discarded. By hydrostatic pressing, more composition was stuffed into the rocket case, making the rocket burn longer, and the filling operation became less noxious and less dangerous.²²

Mr. J. B. Hyde, a duly authorized agent, brought some of Hale's rockets to this country in the fall of 1846 and entered into negotiations with the government.²³ By this time the War with Mexico was well under way. The Battle of Palo Alto had been fought, General Zachary Taylor held possession of Monterey and Saltillo, and the northern sector of Mexico was under American control. It was apparent, however, that the war could not be ended unless the

Mexican capital was taken and the government had decided to attack from the Gulf of Mexico rather than risk the long march from the north. The campaign involved storming the Mexican strongholds on the Gulf and in the Rocky Mountains and plateau of the interior. Records are negligently on this point, but it is quite conceivable that some one saw possibilities in use of rockets in this terrain, which was similar to that in which the Austrian army reported considerable success with rockets in mountain warfare against the Hungarians.²⁴

Mr. Hyde was received and a joint army and navy board was appointed to prove the new missiles. Tests were held on November 24 and 27 at Washington Arsenal, located on the site of the present-day National War College. Thirteen of Hale's own rockets of the 2¾-inch size were fired and "the results were so satisfactory that, on the recommendation of the board, the right of using the invention was purchased by the government."²⁵

The report of the board was dated December 1, 1846. It stated that rockets were fired on land and water and that the board concluded the range, force, and accuracy of the Hale rockets was "at least equal, and probably superior, to that of the ordinary Congreve rocket of the same size," and that being without the stick, this rocket had "incontestible superiority over the Congreve rocket, with respect to facility, convenience of service, and, especially, for use on board of armed vessels or boats."²⁶ Signers were Col. Joseph G. Totten, Chief Engineer; Lt. Col. George Talcott, of the

²⁰ Scoffern, p. 177.

²¹ Goddard, *loc. cit.*, XX, p. 46.

²² Scoffern, p. 181.

²³ Office of the Chief of Ordnance, *A Collection of Annual Reports and Other Important Papers Relating to the Ordnance Department Taken from the Records of the Office of the Chief of Ordnance, from Public Documents, and Other Sources* (4 vols., Washington, 1878-1890), IV 977-9. This work is referred to hereafter by the binder's title: *Ordnance Reports*.

²⁴ Willy Ley, *Shells and Shooting* (New York, 1942), p. 213.

²⁵ *Ordnance Reports*, II, 190.

²⁶ Scoffern, p. 184.

TABLE OF RANGES
(in Yards to First Graze)

ELEVATION IN DEGREES	HALE'S ROCKETS		12-POUNDER MOUNTAIN HOWITZER*		
	2¼ inch	3¼ inch	Shell	Spherical Case Shot	Canister
0	.....	.....	170	150	...
3	.....	.....	637	500	...
4	500 to 600	500 to 600	785	700	250
5	500 to 600	500 to 600	1005	800	250
8	700	800 to 1000	....	...	...
10	800 to 900	1000 to 1200	....	...	...
15	1200	1200 to 1400	....	...	...
47	1760	2200	....	...	...

*½-pound charge used.

Ordnance Department, and Captain A. Mordecai, of the Ordnance Department, for the army, and Commodore L. Warrington, Captain Thomas A. P. C. Jones, Commandant K. M. Powell, Lieutenant A. B. Fairfax of the Navy, and Secretary of the Navy John Y. Mason.

The military thereupon demonstrated that it could move with quickness and dispatch. On December 11, 1846, the Secretary of War and the Secretary of Navy, acting jointly, made an agreement with Mr. Hyde to purchase the full plans and instructions for making these rockets, for \$2,000. The joint army and navy board was called upon to manufacture experimentally "ten rockets of two inches and ten of three inches" from these plans "which shall perform as successfully" as the Hale rockets. If the test rockets proved satisfactory, an additional \$18,000 was to be paid to Mr. Hyde for "the right to make and use the said war rockets, without interruption from or claim for compensation by said inventor, his assignee, or any other person whatsoever."²⁷

The trials were held on January 5, 1847, at Washington Arsenal with Captain Mordecai of the Ordnance Department, and Commodore Warrington, of the navy, heading the American representatives. Fifteen 3-inch rockets, two with shells in the "head" and 13 2-inch rockets, four with shells, were fired satisfactorily, the board reported the next day.²⁸

Even before the tests were started the Ordnance Department on November 19 sent a letter²⁹ to General Winfield Scott, Major General Commander-in-Chief, who the day before had been selected to lead the expedition on Vera Cruz and Mexico City. The letter read:

Sir: I respectfully propose (the sanction of the Secretary of War being first obtained) to gather at Fort Monroe Arsenal, partly by drafts from other arsenals and by enlistment of laborers of ordnance, a sufficient number of men to man a battery of mountain howitzers now at that post, and also to form a brigade of rocketeers, probably 100 men in all may suffice . . .

²⁸ Scoffern, p. 186.

²⁹ *Ordnance Reports*, II, 148.

²⁷ *Ordnance Reports*, II, 152.

They will of course be commanded by ordnance officers.

Geo. Talcott

Lieutenant-Colonel of Ordnance

General Scott suggested two batteries of the mountain howitzers, approved the rocket-corps, and instructed the Chief of Ordnance and the Chief Engineer, Colonel Totten, to work out details. By November 27, the plan had been developed and received the approval of Secretary of War W. L. Marcy. Three days later Colonel Talcott requested official orders to send forward the battery of six pieces, already at Fort Monroe, and the rockets. Necessary orders were issued on December 3, 1846, eight days before the contract for rockets with Mr. Hyde was signed. A premium of two dollars was allowed for procuring recruits for the Ordnance Corps, the same amount allowed for all volunteering under the November 1846 requisition for active field service.³⁰

The next day, December 4, Colonel Talcott forwarded a letter to ordnance arsenals and armories including an advertisement to be inserted in the newspapers and posted in handbill form in the neighborhood.³¹ The advertisement, in best recruiting style of the day, read:

WAR WITH MEXICO!

Wanted one hundred active, brave young men to serve with rocket and mountain howitzer batteries, now preparing by the Ordnance Department for immediate departure.

In pay, provisions, and clothing, this corps will be superior to any other yet raised, and, from the kind of arms, will be constantly *in the advance* where the hardest fighting may be expected.

The highest character for *courage* and *physical ability* will be required for admission.

Apply to

Two dollars paid to citizens for each recruit.

The complement of men duly gathered at Fort Monroe for training. Organization of a separate ordnance combat unit was justified on the ground that both the mountain howitzers and rockets were new developments requiring men of particular skills and experience to handle properly. Further, a new method of fixing ammunition had been developed.

In dealing with activities of this unit it is difficult to separate the howitzer and the rocket portions, since they operated under one command, usually howitzers and rocket stands being placed in the same position. The 12-pounder howitzers, made of bronze, stood about 27 inches high on their special carriages and weighed less than 500 pounds complete,³² compared to some 2,300 pounds for a 12-pounder field howitzer. They were adopted between 1834 and 1839, apparently after French success with such a weapon in the mountains of Algiers.³³ The Hale rockets, as indicated earlier, had just been invented, although the battery also used the Congreve style rockets.

Initial organization was under authority of the Secretary of War. Ordnance personnel was known as artisans, armorers, artificers, and laborers, and although fully-enlisted, held special status. The rocket and howitzer company apparently was at first an independent command under direct control of General Scott. After passage of the act of February 11 for recruitment and the act of March 3 for organization of volunteers enlisted for duration of the war,

³⁰ *Ibid.*, p. 151.

³¹ *Ibid.*, p. 152.

³² *Ordnance Manual for the Use of the Officers of the United States Army* (Washington, 1841), p. 5.

³³ *Ordnance Reports*, II, 222.

the company was attached to the Regiment of Voltigeurs and Foot Riflemen, a peculiar combination of cavalry, infantry, and artillery.³⁴

The voltigeurs theoretically were a regiment of 1,104 men and 47 officers composed of infantry and cavalry in equal numbers, and a battery of small guns that could be taken apart and transported on mules. The infantry was to be taken on the horses if celerity was desired. Actually, the regiment served as foot riflemen after it joined Scott's army in July, 1847, at Puebla.³⁵ Meanwhile, the rocket company had taken part in the siege of Vera Cruz and subsequent battles.

To have the ordnance troops reach Scott in time, orders were issued December 28, 1846. First Lieutenant George H. Talcott (apparently no relation to the Chief of Ordnance), West Point graduate of 1827, was given command of the battery. He later held the rank of major of voltigeurs.³⁶ His subordinate officers were Brevet First Lieutenant Franklin D. Callender and Brevet Second Lieutenant Jesse Lee Reno. Callender had been breveted in the Florida Indian Wars. He later was brigadier general in the Ordnance Department. Reno, a Virginian and 1846 West Point graduate, was holding his first commission in a military career that ended during the Civil War when, as a major general, he was killed on September 14, 1862, in the Battle of South Mountain, Maryland. Reno normally commanded the rocketeers.

The same orders had placed Captain Benjamin Huger, member of the 1840 board of ordnance officers that had reported on rockets, in command of the siege train. He was to serve as Scott's ordnance officer and win honors at Chapultepec, continuing in service of the Ordnance Department until the Civil War when he resigned and became a major general in the Confederate Army. His assistants were First Lieutenant Peter V. Hagner, and Brevet Second Lieutenants Josiah Gorgas and Charles P. Stone. Hagner later became a brigadier general of ordnance; Gorgas was brigadier general and Chief of Ordnance of the Confederacy; and Stone served as brigadier general of volunteers in the Civil War.

The siege train was concerned only indirectly with the rocket and howitzer battery, although on one or two occasions the ordnance officers with the train were connected with the battery's activities. This train likewise was a special ordnance unit. Enlisted men of the train performed all echelons of maintenance and transported the guns with the army, but during battle served a number of the heavy guns as gunners and ammunition bearers, while artillery units served the remainder.³⁷ Thus both ordnance organizations had combat duties, and both won high honors in the more important battles of this campaign.

General Scott wanted to complete his expedition in the lowlands of Vera Cruz before the opening of the season for the dreaded yellow fever, for which there was as yet no specific treatment. He left instructions that the entire ordnance party and equipment arrive by January 15 at the Brazos River, in Texas, where he had gone to organize his army.

³⁴ *Ibid.*

³⁵ Justin H. Smith, *The War With Mexico* (2 vols., New York, 1919), II, 363; Francis B. Heitman, *Historical Register and Dictionary of the United States Army, 1789-1903* (2 vols., Washington, 1903), II, 143. See also the *Army Register for 1848*, p. 38.

³⁶ Lts. Callender and Reno, however, do not appear on the list of voltigeur officers published in *ibid.*, p. 38.

³⁷ *Ordnance Reports*, II, 222.

After the brief period of training with their new equipment, the mountain howitzer and rocket battery, 105 strong, sailed from Fort Monroe February 1, 1847,³⁸ aboard the bark *Saint Cloud*, carrying six mountain howitzers with 1,200 rounds of ammunition, and an initial supply of fifty 2-inch Hale rockets. The number of rocket launchers carried is not shown in ordnance returns. Aboard also were other troops, and quantities of siege mortars, 500 barrels of powder, and other stores.³⁹

In the meantime the Washington Arsenal, under Captain A. Mordecai, who had been a member of the artillery board in 1841, was busy turning out the new Hale rockets.⁴⁰ The arsenal reported that 2,200 war rockets and 14 "conductors" were made to June 30, 1847.⁴¹ The Chief of Ordnance later reported that 1,328 war rockets had been issued to troops.⁴²

Just where and when the mountain howitzer and rocket battery joined General Scott's forces does not appear in available records. Presumably it was at the Lobos Islands, off the Mexican coast about 200 miles north of Vera Cruz, the last week in February. The next rendezvous was at Anton Lizardo, a dozen miles from Vera Cruz. From there, the fleet proceeded to the reef and island of Sacrificos, less than

a mile from the Mexican shore and about three miles southeast of Vera Cruz. On March 9 the "first line" troops, with the rocket and mountain howitzer battery among them, landed on the mainland opposite Sacrificos. This landing was similar in many ways to the amphibious operations used so successfully in World War II. Naval gunboats and warships stood off shore, ready to rake the beach with their fire. Sixty-seven surf boats loaded with seventy to eighty men each, with sailors at the oars, swept forward in battle line while shellfire scattered concentrations of Mexican cavalry.⁴³

"It was found very easy to get the battery complete, with the men, into three surf boats, and in thirty minutes after they struck the beach it was reported ready to move by hand, as we had no horses," Tallcott recorded.⁴⁴

Although Scott at this time kept the engineers, artillery, and cavalry under his immediate orders, the mountain howitzer and rocket battery for the landing was attached to Brevet Major General Worth's brigade of regulars which constituted the first wave. Two other waves followed and investment of the city began, the line of troops moving northward and westward to surround the city. The American troops were on a line about a mile from the city proper, moving through the drifting sand dunes which greatly hampered their operations.⁴⁵ There was little actual fighting, as the Mexicans retreated behind their fortifications after a few skirmishes.

Following the current tactics of placing artillery in advance of infantry—customary

³⁸ *Ibid.*, II, 212.

³⁹ *Ibid.*, II, 161, 177.

⁴⁰ Scoffern stated that rockets on Hale's principle were made at Woolwich for the first time "during the late or Russian War" (Crimean War), which might indicate that American arsenals were first to produce the Hale rockets in quantity. Scoffern also states that the Swiss Confederation had adopted the Hale rockets, as well as the United States, and he adds (p. 182): "The secret of their manufacture has also, it is said, been communicated both to the French and Russian governments."

⁴¹ Senate, *Ex. Docs.*, 30 Cong., 1 sess., no. 1, pp. 695-6.

⁴² *Ordnance Reports*, II, 187.

⁴³ Senate, *Ex. Docs.*, 30 Cong., 1 sess., no. 1, p. 216.

⁴⁴ *Ordnance Reports*, II, 212.

⁴⁵ Smith, II, 25 *et seq.*

since Napoleon's successful employment of this method—the next morning the rockets and one howitzer were moved forward. Several rounds were fired at the enemy “but from the distance the effects could not be ascertained distinctly” Talcott reported.⁴⁶ Other accounts indicate the Mexican skirmishers fled.

The United States batteries were within 1,000 yards of the city, well in advance of the line of investment, near a cemetery on the southeastern side. They were protected by entrenchments. While Scott waited for his supplies—which had to be landed by surfboat on the beach since there was no port and no possibility of erecting a wharf—and fumed about the rest of his heavy siege guns which had not yet arrived,⁴⁷ the men reconnoitered watchfully, tested the mettle of the Mexicans occasionally, and fought the sand flies, the drifting sand, and frequent “northers”—high winds which blew down tents, filled eyes and nose with sand and in general wreaked havoc with operations.

Most busily occupied with actual fighting were the trench guards and batteries. On March 24, with Lieutenant Callender in command of a position in advance of the “Limekiln,” about 40 rockets “of the old kind” were thrown into the city. “Hardly had the first one been thrown when the fort of St. Iago opened upon us with round shot,” Talcott reported, “throwing them very close, and the castle (San Juan) with light ball and shells. We, however, fired all the rockets and returned to camp without loss.”⁴⁸

At midnight on the 25th, from the same place, during bombardment by heavy naval guns brought ashore for the purpose of breaching the city's walls, Talcott threw ten of Hale's rockets into the city, but drew no fire from the forts. From St. Iago, however, there was a discharge of muskets into the surrounding ground as if a storming party was expected.⁴⁹ Before morning the city sounded a “parley” and a flag was sent into the American camp. The negotiations that followed terminated in surrender of the city on the 29th.

Rockets were useful, but there is no evidence to show that they materially affected the outcome at Vera Cruz. The mountain howitzers had contributed a great deal more, as well as the heavy siege ordnance, though the number of pieces on hand were few. Nevertheless, the ordnance rocketeers were in the vanguard in most of the siege operations, and their duties “exceeded, I believe, in severity those of any other [company] present,” Talcott reported.⁵⁰

The rocket battery again was in the “first line” when the next phase began. Anxious to move his army out of the yellow fever zone, General Scott started General D. E. Twigg's division of 2,600 men toward Mexico City April 8, and transferred the rocket and mountain howitzer battery from General Worth's division to Twigg's. The route led along the Mexican National Road—comfortably graded, sandy near Vera Cruz but cement-paved in parts farther inland, with handsome stone cut bridges. Rising from the coastal lowlands to the high plateau of the interior, the road emerged from the yellow fever zone near Jalapa, a beautiful city seventy four miles

⁴⁶ *Ordnance Reports*, II, 212.

⁴⁷ *Senate, Ex. Docs.*, 31 Cong., 1 sess., no. 1, p 221.

⁴⁸ *Ordnance Reports*, II, 212

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*, II, 213

northwest of Vera Cruz.

The march was hard. There were not enough mules and horses; many animals, having been requisitioned from the Mexicans, were untrained. In the blazing sun, at the fast pace set by Twigg's horse, many men fell by the wayside the first day, not to rejoin their commands until days later. And many died. To what extent the Ordnance Corps suffered is not revealed, but the howitzers and rockets were with the division on April 11 when reconnaissance proved that guns commanded a pass at Cerro Gordo. This hamlet, eighteen miles from Jalapa, was at the top of a steep, circuitous, five-mile ascent which finally put the National Road at sufficient elevation to remove it from the pestilential zone. Though not as good a position as one or two others closer to Jalapa, Mexican military experience had proved to Santa Anna, President and military commander, that its flanks were unassailable. Santa Anna felt that by holding it, he could force the Americans to remain within reach of the yellow fever.⁵¹

General Scott arrived on April 14 at the American camp a few miles below Cerro Gordo. Meanwhile additional troops had marched in from Vera Cruz. Reconnaissance showed that the Mexicans had placed many guns on three tongues of high land jutting along the south of the highway, and had some guns and troops on the left, particularly at a high hill known as El Telegrafo which commanded the entire position. The main Mexican camp was to the rear, close by Cerro Gordo. There were reported to be at least 12,000 men under Santa Anna, while Scott's army numbered about 8,500.

Captain Robert E. Lee of the engineers found by night reconnaissance that artillery might possibly be brought to the Mexican left flank and rear across the rough ground—thought impossible by Santa Anna—who believed the artillery could be brought up only over the highway.

The American plan was to gain the highway in the rear of the main Mexican camp and then attack from the rear and possibly the front. On the morning of April 17 at 7 o'clock, Twiggs advanced, the ordnance troops with four mountain howitzers and the rockets a part of his column. The route lay over the path Captain Lee had found. A rough "road" had been cut the night before through oaks, mesquite, chaparral, and cactus, over almost impossible ground. About noon the command was in the vicinity of La Atalaya, a lower hill about 700 yards in front of El Telegrafo. Twiggs had been instructed to avoid a collision, occupy this hill, reach the Mexican left, and rest near the highway until the remainder of the army was brought into position. However, the Mexicans had observed the advance and La Atalaya was occupied only after stiff combat. An enthused company of Americans rushed down La Atalaya and began to ascend El Telegrafo. It was then in a desperate situation, as were the reinforcements hastening to its relief, until an ordnance howitzer discouraged the enemy sufficiently to allow the Americans to retire to La Atalaya, which they held despite counter attacks.

During the night two howitzers and one half the rocket battery, along with a 24-pounder, were placed on the summit of La Atalaya. The ordnance men were aided by troops of a rifle regiment who attached ropes and by extraordinary exertion managed to drag the pieces through the woods and

⁵¹ Smith, II, 70 *et seq.*

rocky gorges and up the steep and bristling hill. Lieutenant Reno was in command of this position, which was in advance of the infantry. "The enemy shortly after appeared forming in the ravine and on the slope of their hill [El Telegrafo] in large numbers as if to attack," Major Talcott later reported, "but a few well directed rounds from the howitzers scattered and drove them back in confusion to their entrenchments."⁵²

The other two sections of the ordnance company, under Lieutenants Callender and Gordon, were placed on the extreme right to command the gorge of the American route, and later were brought into the pursuit of the enemy.

Before 7 o'clock Sunday morning, April 18, the ordnance section under Lieutenant Reno opened the battle, and fired "with great effect till our troops had closed in on them—the rockets first towards the enemy's left, below the hill into the cover occupied by his advanced force, and then the howitzers, by direction of Colonel Harney, towards his right at troops in the hollow and a battery, while the First Brigade was so gallantly storming the heights in front."⁵³

Thirty rockets and forty rounds of spherical case shot were fired in all by Lieutenant Reno "who deserves great credit for his judicious placing of the battery, and his cool and gallant conduct in so efficiently using it," Major Talcott reported. "The whole command behaved as was to be expected and we are fortunate in escaping with but one man severely wounded."⁵⁴

Reno was breveted first lieutenant for his conduct in the battle.

In his report General Scott stated that "Talcott's rocket and howitzer battery were engaged on and about the heights and bore an active part."⁵⁵

The fighting at El Telegrafo decided the issue, although there was considerable action before the batteries along the national highway. The taking of El Telegrafo, while not part of the original battle plan, brought the desired result and the Mexicans fled in great confusion, not stopping at any of the other strong points near Jalapa. The action was over, except for the pursuit, by 10 o'clock.

That ended rocket and howitzer action until the final attacks on Mexico City. The intervening weeks were spent by the ordnance men largely at Puebla, Mexico's second city, about halfway between Jalapa and Mexico City. While there most of the volunteer regiments left Scott's army, their term of enlistment having expired, but new volunteers arrived during July, bringing the army to about 14,500 men. The ordnance volunteers remained, both with the rocket and howitzer battery and with the siege train, which was reinforced by arrival of new heavy guns during July, along with many other supplies. The voltigeur regiment arrived July 8 with Major General Pillow and his new regiments that had enlisted for duration of the war, with promise of a bounty of 100 acres of land or \$100 in cash.

⁵² Senate, *Ex. Docs.*, 30 Cong. 1 sess., no. 1, p. 279.

⁵³ *Ibid.*

⁵⁴ Lt. George H. Gordon of the Rifle Regiment in General Twigg's division was wounded slightly while on temporary duty with the rocket and howitzer company according to army returns for the 17th and 18th of April, 1847 (*ibid.*, p. 270).

⁵⁵ *Ibid.*, p. 261.

On August 7 Scott advanced with 10,738 men, the remainder lying sick in hospitals at Puebla and Perote. He had cut his communications with the coast—as a matter of fact they could not have been held with the force available against the guerillas—and marched up the mountains toward the capital, reaching a point 10,500 feet above sea level before dropping into the Valley of Mexico. This was a shallow, somewhat circular, basin about 36 by 46 miles in diameter, apparently an extinct volcano, with many marshes and lakes. The roads leading to the city were on narrow tongues of semi-solid ground, with causeways carrying more important arteries of traffic. The city proper was on solid ground, defended by *garitas* and walls.

Santa Anna had fortified an eminence on the national highway, Old Peñón, so heavily that Scott began a sidelong maneuver seeking an opening for attack. By the 17th of August advance American units were at San Augustin, about ten miles south of the city. The Mexican army shifted with them.

Upon the finding by Captain Lee and Lieutenant Beauregard of a possible route eastward to Contreras, on August 19 Pillow's division began to build a road in that direction for artillery, protected by Twigg's division. At the top of a ridge a large force of Mexicans under General Valencia was discovered and General Pillow ordered riflemen to clear the ground. At the same time he sent his artillery, including the howitzer and rocket battery, forward nearly a mile beyond the hamlet of Padierna without cover over almost impassable ground, there to duel with a score of Mexican siege guns, 68-pounders, and other artillery at a range of about 900 yards. Lieutenant Callender was in charge of the how-

itzers and Lieutenant Reno of the rockets, their position selected by Captain Lee.

"Heavy shelling by big Mexican guns continued for more than an hour until compelled by the loss of officers, men and crippled pieces, our batteries were withdrawn," General Twigg reported.⁵⁶ Lieutenant Callender was severely wounded and Lieutenant George B. McClellan of the engineers took charge of the battery, winning Twigg's recommendation and a brevet first lieutenantcy for efficiency and gallantry. Callender later was breveted as captain for his part.

Twigg added: "The coolness, and determination evinced by the officers and men whilst under this hot fire gave sure indications of the result of the coming conflict when all my command would get into position."⁵⁷

Meanwhile other units attacked the Mexican flanks and as night fell the situation was at somewhat of an *impassé*, with an "impassable" ravine between the two forces. During night a severe storm arose during which Captain Lee won honors for crossing the *pedregal*, a sea of jagged lava, with plans from General Scott for retrieving the situation. The conflict, now known as the Battle of Contreras, was resumed the next day and the Americans drove the Mexicans before them. The victory was quickly followed by another at Churubusco about four miles to the right. Here the rocket battery, ordered forward with Pillow's men to assist, did not reach that battlefield until most of the fighting was over.

The American army halted for a fortnight while negotiations were under way during an armistice. The ordnance troops

⁵⁶ *Ibid.*, p. 322.

⁵⁷ *Ibid.*

in part were disposed at San Antonio, and in part at Mixcoac, where a general depot was established. Ordnance men attached to the siege train carried on their less combative duties of repairing the ordnance and replenishing supplies of ammunition.

The armistice ending without result, General Worth's division was moved toward the city on the west, and took a powder magazine and foundry known as El Molino Del Rey on September 8.

The ordnance siege train, which had been active in all battles, took a major share of honors under command of Huger, who was assisted by Captain Hagner, breveted at Cerro Gordo, and Lieutenant Stone. In the heavy cannonading, one ordnance private was killed, another wounded. The stone buildings were taken, and the Americans were within a half mile of the fortified college atop the mighty hill of Chapultepec. The rocket and howitzer battery accompanied Pillow's division on a feint toward the city itself, remaining for the most part in reserve near the village of Tacubaya, 1,000 yards away, though there was some supporting action.

Decision having been made at a staff conference to enter Mexico by way of Chapultepec rather than attempt to storm the causeways and *garitas* on the south of the city, Captain Huger prepared bombardment plans. These were approved by Captain Lee of the engineers. Heavy firing by the siege-train guns preceded the actual charge which is commemorated as one of the heroic episodes of American arms.

The rocket and howitzer battery was to play a prominent part. At 3 A. M. on September 12, General Pillow's division, to which the battery was attached, moved from Tacubaya to Molino Del Rey. On the 13th, the howitzers passed through the

houses and walls of the demolished mills. Lieutenant Reno placed them in battery "so as to aid me in driving the enemy from a strong detachment extending nearly across the front of the forest, and commanding my only approach to Chapultepec," General Pillow reported.⁵⁸

While the battery was firing, four companies of voltigeurs advanced to the base of the hill, captured a redoubt and opened fire on the parapet of the fort while other units, including marines, joined in the attack. Lieutenant Reno's battery, firing from Molino eastward into the fields, covered them. With scaling ladders, the troops went upward, saved from destruction when Mexican mines planted on the hill failed to explode, and the blue flag of the voltigeurs was placed on the parapet—the first American flag there.

Lieutenant Reno again won commendation for his "extraordinary daring under fire from the whole line of entrenched enemy" in keeping fire on Mexicans to aid in driving them out of advanced positions. Then Reno ran forward with the pieces, "kept up with the storming column and at the very base of the height placed them in battery almost at the mouth of the enemy's cannon, and served them until he was disabled by wounds," General Pillow reported.⁵⁹ Lieutenant P. G. T. Beauregard (later a Confederate general in the Civil War) took his place for the remainder of the engagement.

The Ordnance Corps won high praise from all sources. General Scott stated: "The mountain howitzer battery, under Lt. Reno of the Ordnance, deserves, also, to be particularly mentioned. Attached to the

⁵⁸ *Ibid.*, p. 400.

⁵⁹ *Ibid.*, p. 405.

Voltigeurs, it followed the movements of that regiment and again won applause."⁶⁰ General Pillow commended several ordnance enlisted men. First Sergeant W. Peat, who lost a leg in the battle, was mentioned for extraordinary courage, and Sergeants Depew and McGuire also won honors.⁶¹

Thus ended the most conspicuous use of war rockets by the American army prior to 1942. The ordnance rocket and howitzer company, reduced to 69 men, was discharged from service in the late summer of 1848.⁶² Mountain howitzers, which were adapted to transportation by pack horse, have since held a prominent place in the army in one form or another of pack-artillery. But the official record fails to establish that rockets were highly efficacious, though English sources reported they were "used with the greatest advantage."⁶³ Neither does it reveal to what extent the Americans themselves were subjected to rocket fire, although ordnance returns listed Congreve rockets among matériel captured from the Mexican army.⁶⁴ Nor does it indicate what superiority in combat over the Congreve type accrued from Hale's rockets. It may be concluded, however, that the army was reasonably well satisfied at this time because rockets were manufactured and issued for a number of years thereafter, and organization of rocket batteries was provided.

As pointed out before, rockets were fairly efficient missiles compared to the artillery projectiles of the day. Hale's rockets had good range, as shown by these figures taken

from the ordnance manual of 1850:⁶⁵

The 2¼-inch rocket weighed 6 pounds; the 3¼-inch weighed 16 pounds. The fixed shell weighed 9.2 pounds, the spherical case 11 pounds, the canister 11.2 pounds.⁶⁶ On the other hand, even the mobile, light mountain howitzer weighed 500 pounds, while the rocket stands were a fraction of that, estimated at 20 pounds.

No regular organization of a rocket battery was arranged, the manual stating: "The nature and number of rockets, and of carriages or conductors, will be determined by the character of the service for which they may be required."⁶⁷

The same manual described the war rockets as being made of "sheet iron, lined with paper, or wood veneer. The head is of cast iron, and may be either a solid shot, or a shell with a fuze communicating with the rocket composition. The case is usually charged solid, by means of a ram, or a press, and the core is then bored out. . . . War rockets are usually fired from tubes or troughs, mounted on portable stands, or on light carriages."⁶⁸

The regulations of 1852 listed two sizes of Hale's rockets, and also the Congreve rockets.⁶⁹ The Hale rocket was again described, with some changes, in the ordnance manual of 1862.⁷⁰ Some of these changes were part of the development and improvement that occurred between 1850 and 1860.

⁶⁵ *Ordnance Manual for the Use of Officers of the United States Army* (Washington, 1850), pp. 148, 365.

⁶⁶ *Ibid.* (1850), pp. 131-48.

⁶⁷ *Ibid.*, p. 331.

⁶⁸ *Ibid.*, p. 289.

⁶⁹ *Regulations for the Government of the Ordnance Department* (Washington, 1852), p. 51.

⁷⁰ *The Ordnance Manual for the Use of the Officers of the United States Army* (Washington, 1862), p. 314.

⁶⁰ *Ibid.*, p. 380.

⁶¹ *Ibid.*, p. 405.

⁶² *Ordnance Reports*, II, 250.

⁶³ Scoffern, p. 183.

⁶⁴ *Ordnance Reports*, II, 209.

But the factors which contributed to the decline of rockets, under more leisurely and critical appraisal of peace, soon came to the fore. It was found that those made for the Mexican War were deteriorating rapidly in storage. In a few years they were unfit. Efforts to improve them continued, particularly by members of the inventor's family. In 1851 Mr. William Hale, Jr., brought to this country an improved stand for firing the rockets and also some rocket cases. After due trials, the Secretary of War authorized payment of \$770 for the stand and cases and his expenses.⁷¹

In 1855, Mr. Robert Hale arrived with reports of further improvements in both the stands and rockets. He was authorized to make a few at Washington Arsenal. They proved good, and an agreement was made that a quantity would be manufactured at the arsenal under his supervision at \$5 per day. Some rockets were sent to Baton Rouge, Louisiana, others to New Mexico and the remainder were retained at Washington in storage for a year, to be "exposed to the vicissitudes of the climate." They were tried in 1857, and although the rockets stored in New Mexico were unsatisfactory, those at Baton Rouge and Washington performed favorably. The Chief of Ordnance reported that the new rockets were superior to those of the former pattern and \$1,000 was paid to Mr. Hale for the improvements. In July, 1858, he was paid an additional \$4,000.⁷²

Thus, since 1846, the Government had paid the Hale family \$25,770 for rocket plans and specifications—a not inconsiderable sum for those days.⁷³

Others sought to improve the rockets.

Most significant was the theory advanced by J. Scoffern, professor of chemistry at Aldersgate College of Medicine, London. He stated that efforts to reduce the rapidity of combustion of gunpowder by varying the percentage of its components—a principle widely used in making rocket powder—was "injudicious." He suggested that "the only means available for lessening the velocity of combustion of gunpowder to be employed as a projectile agent will consist in enlarging the size of its grains."⁷⁴

The last available record of rocket manufacture by the Ordnance Department in this period is that given in the annual report of the Chief of Ordnance for the fiscal year ending June 30, 1862, wherein he reported that 714 war rockets were made.⁷⁵

That appears to have been the dying gasp. When the American consul at Aix la Chapelle, in keeping with the rush that occurred during the Civil War to equip the Union army with foreign munitions, suggested the purchase of Congreve rocket batteries offered by French sources, the Chief of Ordnance on July 15, 1864, wrote to the Secretary of War as follows:⁷⁶

Experience with rocket batteries during this war is not at all favorable to their usefulness. The same number of men and horses can pro-

⁷³ About 1859 Hale modified his rocket considerably. He reduced the tangential holes to two, and placed them centrally in the rocket at the place of the rocket's center of gravity. The rocket was ignited at these apertures rather than at the end as formerly. In effect, the new rocket consisted of a pair joined together, merely separated by a diaphragm of iron perforated by a touchhole. The front rocket furnished gas for supplying the two tangential holes and thus made the whole structure rotate; the posterior one was devoted exclusively to propulsion. (See Scoffern, p. 363.)

⁷⁴ Scoffern, p. 358.

⁷⁵ *Ordnance Reports*, III, 447.

⁷⁶ The question was raised in the annual report of the Adjutant General for 1847. He said that batteries of artillery were being served by ordnance men and volunteers while several companies of field art-

⁷¹ *Ordnance Reports*, IV, 977-9.

⁷² *Ibid.*

duce more effect with the improved cannon and projectiles now used. Rockets have but little range and accuracy compared to rifled projectiles, and are liable at times to premature explosions and great eccentricity of flight. This department has no assurance that these rocket batteries have been tested in actual service, or that they possess the necessary requisites. I cannot, therefore, recommend their purchase.

Although deterioration in storage may have been a factor, the principal reason for eclipse of the rocket apparently was the improvement in artillery that occurred shortly after the War with Mexico. Rifled cannon were introduced and their superiority over the smoothbore in accuracy and range was so pronounced that the Ordnance Department began to rifle many of the guns in stock. This still was in progress when the Civil War broke out. On the other hand, rifled cannon of large caliber were not an

unmitigated success even as late as 1865 and records show that the bulk of Union artillery was of the smoothbore type. Therefore rockets could possibly have had some value were it not for their instability and reluctance of troops to use them, plus perhaps the enthusiasm of the new ordnance regime which took office in 1863 for rifled cannon. Another factor contributing to disinclination of the Ordnance Department to aggressive sponsorship of rockets may have been the controversy that raged for many years over the fact that a separate ordnance corps had manned the rocket and howitzer battery, and siege guns, to the discomfort of line troops unacquainted with the new type of equipment.

Though war rockets disappeared from general use, there were men who continued sporadic research and retained interest in the subject. Their discoveries and developments, especially from World War I on, eventually closed much of the gap in efficiency between rockets and rifled guns. As a result, the rocket today has gained a place of prominence—not as a rival of artillery, but as an additional, complementary element contributing to the firepower of American troops. The future still is a matter of speculation, but it probably will not be the eclipse suffered by types used in early American wars.

lery were being used as infantry (see Senate, *Ex. Docs.*, 30 Cong., 1 sess., no. 1, p. 80). The Chief of Ordnance defended his action in a letter of April 6, 1848 (*Ordnance Reports*, II, 222), pointing to the special status of the rocket and howitzer battery and stating that the siege train performed all required artisan functions without complaint and in addition served the guns. In 1851 a circular letter signed by artillery officers complained of the siege train and rocket and howitzer battery and cited their use as one of the reasons why, first, a course of artillery should be instituted, and, second, the Ordnance Department should be absorbed by the artillery. This controversy continued for a number of years (see *ibid.*, II, 417-88).

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Notice

The Annual Members' Meeting of the American Military Institute will be held Tuesday, April 22, 1947 (for the election of trustees), in the auditorium of the National Archives, Washington, D. C.

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Headquarters Gazette

VARIOUS MATTERS

CHANGES IN HEADQUARTERS, ARMY GROUND FORCES

Relocation at Fort Monroe

Originally announced for September 15, the transfer of Headquarters, Army Ground Forces, from its location at the Pentagon was rescheduled, according to General Devers (whose picture appears on the front cover), tentatively for October 15, or thereabout. The delay in the move was occasioned by building material shortages, which have hampered the conversion into office space of the class-room and laboratory facilities of the Coast Artillery School, located until May of this year at Fort Monroe and now established at the Presidio of San Francisco. This marks the second move which the ground forces headquarters will have undergone since its activation in 1942. Headquarters, Army Ground Forces, had been located at the Army War College, moving to the Pentagon in the fall of 1945.

Recent Staff Changes, Army Ground Forces

Certain recent changes in key staff personnel have been noticed in the ground forces headquarters: Major General Herbert L. Earnest has been named Assistant Chief of Staff for Training (G-3), in place of Major General Clarence R. Huebner, now serving



BRIGADIER GENERAL HERBERT L. EARNEST

as a Deputy Chief of Staff with United States Forces, European Theater, and slated to become Chief of Staff, United States Forces, European Theater, at a later date, replacing Major General Harold R. Bull. Brigadier General Frank O. Bowman has succeeded Major General Lunsford E. Oliver as Assistant Chief of Staff for Supply (G-4), General Oliver having been transferred to the Office of the Secretary of War.

GUIDED MISSILES GROUP ESTABLISHED IN *Army Ground Forces Plans Section*

Colonel Clare H. Armstrong, who organized and commanded the antiaircraft defenses of Antwerp and its port during the battle of the buzz bomb, has recently been announced as chief of a new establishment in the Plans Section of Headquarters, Army Ground Forces, known as the Guided Missile, Antiaircraft Artillery, and Coast Artillery Group. This new group, according to General Devers' announcement, is charged with the responsibility for overall planning and formation of Army Ground Forces policies in respect to guided missiles and represents the ground forces on matters concerning antiaircraft and allied subjects, as well as overall planning for the consolidation of the Coast Artillery and the Field Artillery in a single arm. Other officers assigned to the group include Colonel John W. Davis, former Chief of the Antiaircraft Section, Headquarters, 12th Army Group; and Colonel David B. Routh, former Assistant Antiaircraft Officer and Assistant G-1, Headquarters, United States Eighth Army.

* * * *

General Hickey Inspects Army Ground Forces Winter Task Forces

On August 28, coincident with statements of the House Military Affairs Committee on the state of United States military installations in Alaska and other northern regions, Brigadier General Doyle O. Hickey, Chief of the Army Ground Forces Developments Section, completed an extensive inspection of the troops which have been designated as task forces FROST, FRIGID, and WILLIWAW, now preparing for cold weather equipment tests next winter. WILLIWAW and FRIGID, now stationed at Fort Ord,

California, will make their tests, according to Army Ground Forces announcements, at Adak and Fairbanks; while FROST, located at Camp McCoy, will remain in Wisconsin for its winter operation.

General Hickey's group included: Brigadier General Harlan N. Hartness, President of Army Ground Forces Board No. 3, Fort Benning, Georgia; Dr. Paul A. Siple, who accompanied Admiral Byrd on his Antarctic expeditions, now biogeographer for Research and Development Division, War Department General Staff; Colonel George A. Read, Jr., President of Army Ground Forces Board No. 2, Fort Bliss, Texas; Colonel Guy C. Kurtz, President, and Colonel William H. Ennis, Executive, of Army Ground Forces Board No. 1, Fort Bragg, North Carolina; Colonel Louis T. Heath, Army Ground Forces Developments Section; Colonel H. W. Kruger, Field Artillery Branch, Army Ground Forces Developments Section; and Colonel D. J. Crawford, Ground Ordnance, Army Ground Forces.

HUGH M. FLICK DECORATED

Lieutenant Colonel Hugh M. Flick, Archivist of the State of New York, and formerly Secretary-Treasurer of the American Military Institute, has been awarded the Legion of Merit, for his work during the war period as Chief of the War Department Records Branch of The Adjutant General's Office. On July 13 The Adjutant General instructed the Commanding General of the First Army to make the presentation to Colonel Flick, then on terminal leave. The citation mentioned Flick's important work in directing "all operations incident to the utilization of War Department Records as well as the collection and analysis of operational and historical records of World War II. He formulated and executed policies on matters

concerning archival procedures relating to the usage of all types of records." Colonel Flick's services in this capacity were commended as "outstanding and of great value to the War Department and other governmental agencies."

Upon separation from the service, to resume his civilian duties at Albany, Flick was succeeded as Chief of the War Department Records Branch by Dr. Robert H. Bahmer, formerly senior archivist of the Records Division, The Adjutant General's Office, and Treasurer of the American Military Institute during 1943. Before coming to the War Department Bahmer was Chief of the Division of Navy Department Archives in the National Archives.

U. S. ARMY ORDNANCE EXHIBIT

The Honorable Robert P. Patterson opened the United States Army Weapons Exhibition near the Washington Monument on the afternoon of August 1 with remarks pointing to the general superiority of American weapons over those of the enemy. The Secretary of War stated that unfortunately "because of our unwillingness to prepare for war in time of peace, some of the best of these were not developed until war was upon us. These should be an object lesson in the evil of unpreparedness." The display, he added, should also

serve to impress on us the genius for destruction that is aroused by war, and should strengthen our national determination to devote our united efforts to achieving and maintaining lasting world peace.

Also present at the opening ceremony were General Carl Spaatz, Commanding General of the Army Air Forces; Major General Everett S. Hughes, Chief of Ordnance; Major General Floyd Parks, Chief of the War Department Bureau of Public Relations; and



HUGH M. FLICK (AS A LIEUTENANT)

Brigadier General A. B. Quinton, commanding Aberdeen Proving Ground.

ATOMIC ENERGY LECTURES IN THE WAR DEPARTMENT

In response to an order by the Secretary of War that the heads of War Department activities and their key personnel become acquainted with all phases of atomic energy in relation to the military organization of the United States, a special course of lectures on atomic energy was organized by the Plans and Operations Division of the General Staff. Opened on August 27 with brief introductory addresses by the Secretary of War and the Chief of Staff, the course aimed specifically to acquaint those intimately charged with the training, organization, and indoctrination of the army with the limitations and capabilities of atomic energy and

its effects on methods of warfare so that it may be given full and integrated consideration in future planning. The course, comprising eight one-hour lectures scheduled over a period extending until September 19, was divided into four parts: Three sessions were devoted to necessary background material by Dr. R. E. Gibson, of the Applied Physics Laboratory, Johns Hopkins University, located at Silver Spring, Maryland, and of the Carnegie Institute. Dr. L. F. Curtis of the National Bureau of Standards gave a practical demonstration on the characteristics of various fissionable material. Dr. H. H. Wensel, of the Scientific Liaison Group, Research and Development Division, War Department General Staff, devoted three lectures to the military application of atomic energy; and Major General Lauris Norstad, Director of the Plans and Operations Division of the General Staff, closed the course with a summary of present War Department plans for the use of atomic energy.



MAJOR GENERAL LAURIS NORSTAD

LIEUTENANT COLONEL MARCUS SELDEN
GOLDMAN AND LIEUTENANT ROBERT C.
ZOTT, AMERICA MILITARY INSTITUTE
LIFE MEMBERS

According to Major Maynard G. Moyer, Membership Secretary of the American Military Institute, two new life members have been added to the rolls: Lieutenant Colonel Marcus Selden Goldman and Lieutenant Robert C. Zott.

Colonel Goldman is a veteran of the first World War. He was recalled to active duty in the Air Corps March 23, 1942, and assigned to the Directorate of Intelligence Service, Headquarters, Army Air Forces. Later he served as Chief of the Orientation and Instruction Branch, Military Intelligence Service (G-2), War Department General Staff. His current assignment is that of Operations Officer, Army Ground Group, Joint

Task Force I, and he has just returned from duty in the Pacific in connection with Operation CROSSROADS. Colonel Goldman holds a Ph.D. degree from the University of Illinois, where he is now a member of the graduate faculty (on leave), with the rank of associate professor of English.

Lieutenant Zott graduated from the United States Military Academy in 1945 and went overseas early this year for duty with the 6th Bomb Group (B-29), in the Philippines.

CHEMICAL WARFARE SERVICE REORGANIZED

Early in August Major General Alden H. Waitt, Chief of the Chemical Warfare Service, announced a reorganization of his service, which provided for the consolidation of



MAJOR GENERAL ALDEN H. WAITT

President of the War Manpower Board. This is not the first occasion on which the two generals successively held the same post; for in late summer, 1943, General Bonesteel replaced General Allen as Commandant of the Infantry School at Fort Benning.

When War came General Allen was on duty with the War Plans Division, War Department General Staff. In 1943, after his tour of duty in command of the Infantry School, he went overseas and served as General Bradley's Chief of Staff from the Normandy invasion to the occupation of Germany. Subsequently he became President of the Liquidation and Manpower Board, United States Forces, European Theater.

Early in the war General Bonesteel became commanding general of American troops in Iceland. In June, 1944, after nearly a year in command of the Infantry School, he assumed command of the Western Defense

five former divisions into three and for the transfer of the entire Research and Development Division to Edgewood Arsenal, Maryland. Colonel E. C. Wallington has been named Executive Officer; Colonel D. R. King is Chief of Control, in the Office of the Chief of the Service; Colonel J. C. MacArthur is Chief of Plans, Training and Intelligence; Lieutenant Colonel J. H. Rothschild became Chief of the Liaison Group; and Colonel W. M. Creasy, Chief of Supply and Procurement.

THE WAR DEPARTMENT MANPOWER BOARD

General Allen Succeeds General Bonesteel as President

Major General Leven C. Allen, Chief of Staff of the 12th Army Group in Europe during the war, succeeded Major General Charles H. Bonesteel on September 3 as



MAJOR GENERAL CHARLES H. BONESTEEL

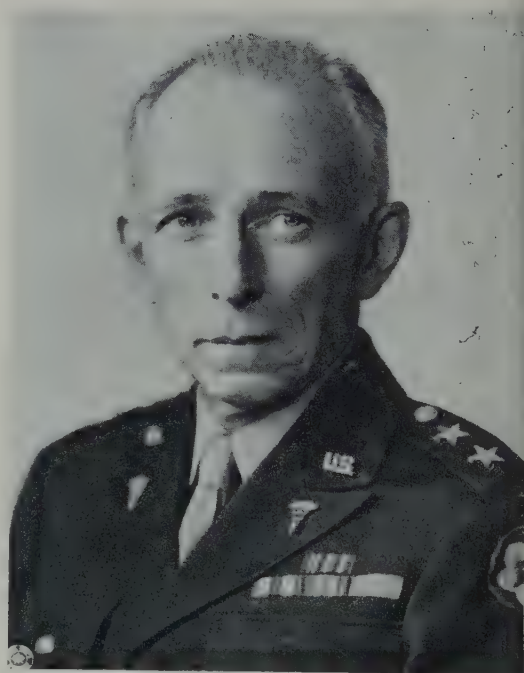
Command, later returning overseas as Inspector General of the European Theater. He became President of the War Department Manpower Board last September.

Tremendous Personnel Reductions Ordered in the War Department

The War Department Manpower Board is required to conduct a continuing survey of the employment of manpower within the jurisdiction of the War Department to insure the most effective use of personnel. General Allen became President of the board almost immediately after General Bonesteel had announced that orders were in the mail for War Department agencies to make drastic cuts before October 1 in their civilian personnel. On October 1, according to General Bonesteel's statement, the total of "departmental personnel," mainly headquarters employees in Washington, must stand at 19,950. This figure represents a drop of 2,987 employees from the rolls as of July 31, the number in some offices (as for instance, The Adjutant General's) being curtailed as high as forty per cent.

MEDICAL ADVISORY COMMITTEE APPOINTED

Late in August the War Department announced the appointment of a medical advisory committee to the Secretary of War, to foster closer relations between civilian and army medicine. Chairman of the new committee is Dr. Edward D. Churchill, Professor of Surgery at Harvard Medical School and President of the American Surgical Association. During the war he served as the army's consultant in surgery in the Mediterranean Theater. Other members of the committee are Dr. Elliott Cutler, Mosely Professor of Surgery at Harvard; Dr. Mi-



MAJOR GENERAL NORMAN T. KIRK

chael DeBakey of the Tulane University Medical School; Dr. Eli Ginsberg of Columbia University; Dr. William C. Menninger, Director of the Menninger Clinic, Topeka, Kansas; Dr. Hugh J. Morgan, Professor of Medicine, Vanderbilt University Medical School; and Dr. Maurice C. Pincoffs, Professor of Medicine at the University of Maryland. All served with the Medical Department of the army during the war.

GENERAL KIRK ANNOUNCES PENDING CHANGES IN THE MEDICAL DEPARTMENT

Major General Norman T. Kirk, the Surgeon General, has stated that the excellent record of some 3,000 Sanitary Corps officers during the war has assured them definite professional status in the Medical Department.

In the conversion of the department from a war footing Sanitary Corps officers have been offered regular army commissions in the Pharmacy Corps. If pending legislation is approved the Sanitary Corps, Medical Administrative Corps, and Pharmacy Corps will

be grouped in a Medical Service Corps. General Kirk declares that in such a consolidation the professional identity of the individual would not be lost, but that the specialized technical skill of each officer would be used to maximum advantage.

* * * *

The Nurnberg Trial Papers

The National Archives recently accessioned a part of the papers created by Justice Robert H. Jackson's Office of United States Chief of Counsel for Prosecution of Axis Criminality at Nurnberg. Justice Jackson had access to tons of captured documents, taken in the course of occupation of Germany and other enemy nations, which was scanned for information that was thought to be of value to the prosecution of Axis criminals.

The documents selected for use at the trials were photostated and translated. A copy of each document used by the prosecution was given to the defense forty-eight hours prior to its introduction in evidence at the trial, and the original copies were used as exhibits at the trial and deposited among the records of the Court.

Justice Jackson's office retained mimeographed copies of the translations of the document introduced at the trial together with photostatic copies of most of the original captured records. These translations and copies of original captured documents comprise the bulk of papers received from the Justice by the National Archives.

The translations of the documents with some explanatory data are now available in eight volumes entitled *Nazi Conspiracy and Aggression*, Vols. 1-8, Government Printing Office, Washington, D. C. The papers included in volumes two and eight and those that will be included in two volumes concerning the defense will be transferred to the National Archives when work upon the publications is completed. These volumes will serve the needs of those with only a casual interest in the trial, but scholars will find the association of the copies of captured documents with the retained copies of the translations a very convenient source for exhaustive examination of the many facets of the trial and its background.

Notes And Antiquities

PROPOSAL FOR A NATIONAL WAR MUSEUM

At its meeting on March 7, 1946, the Board of Trustees of the American Military Institute unanimously resolved:

That the development and maintenance in our democracy of an adequate understanding of the problems of national security indispenibly requires the provision of visual means of understanding in addition to the written word; that to this end it's of great importance that there be established as soon as possible a national war museum.

For fully six months prior to the date of this action the topic of a war museum had been under constant discussion in the service departments. In November 1945 the Secretaries of War and Navy had written the President urging consideration be given the establishment of such an institution, and

acting on these recommendations the President had appointed a Committee of distinguished experts to investigate the matter.

In the course of its investigation this Committee reviewed the various proposals that already had been submitted. Though they varied in detail, all the proposals contained one dominant thought: *the museum must be modern in concept and design and must be prepared to serve vigorously as an agency of public education.*

One of the proposals had been submitted in 1945 by Mr. Forbes Watson, art critic and author, at the time Art Consultant for the Treasury Department. Although Mr. Watson's plan envisioned a war museum within a War Institute, we feel it so well expresses the all important concept of the dynamic museum that we take pleasure in reproducing his proposal in full.

THE NATIONAL WORLD WAR INSTITUTE

BY FORBES WATSON

The proposed World War Institute has two interwoven aims: First, to make a fully representative collection of materiel, paintings, photographs, moving pictures, maps, charts, World War literature and any other visual or written material necessary to its educational functions. Second, to present this material in the most effective manner

for the purpose of encouraging the study of the World War by holding significant exhibitions, by maintaining an active and complete library of the World War, by establishing courses of lectures coincident with its exhibitions, and by periodic publications.

The Institute will function on the basis that the better we understand the world the

more prepared we are to meet the responsibilities of our new world position.

On the threshold of what we call the atomic era peace becomes more than ever the duty of all men and the National World War Institute, while physically a commemorative institution, will be dedicated educationally to the spread of peace through knowledge, visual, oral and written.

EXPLANATION OF NAME

Let us pray that the world will be saved from adding to its encumbrances another of those war museums with dust-collecting halls of faded trophies, cases of outdated firearms, cabinets of medals, quaint uniforms and dismal portraits. Yet this is the doom that by the mere passing of time hangs over every museum which sets out to be a static repository to the glorification of war and its heroes.

We do not want another mausoleum of arms and flags. It would disgrace the boldness, initiative and energy with which America has won the greatest war in history and thereby become the leader of the world.

We need an institution which by vigorously spreading knowledge of the World War and its implications will help the citizens of the United States effectually to meet the responsibilities which our new world leadership has placed upon us. To meet them we must understand the World War, its genesis, its global strategy, its economy, its place in history, its effect upon ours and other nations, its destruction and its results.

No quiescent war museum can supply our vital need for clearer understanding and broader perspective. We require a going concern able to use the vast amount of varied exhibition material at its disposal with taste and effectiveness and able to carry out an educational program for the people which will better prepare them for their new place

in the world. For this institution, alive to its obligations and dedicated to the people's better understanding of world relationship, we propose the name: THE NATIONAL WORLD WAR INSTITUTE.

THE INSTITUTE WILL INCLUDE A MUSEUM

The position of the museum in the community has changed radically in the Twentieth Century. It no longer waits silently for visitors to discover its attractions. It sends out to the people; by means of its own publications and through the press, its calls for visitors. We are now aware that museums can and do take an active part in the life of the community.

The National Gallery in Washington is a case in point. Rich in material, it has not been satisfied merely to hang its paintings on the walls and place its sculpture advantageously. It holds temporary exhibitions, maintains lecture courses, employs docents. It is developing a library relating to the contents of the museum and in other ways it plays a vital part in community life.

If the proposed National World War Institute were planned to be limited to the art inspired by the war it could do no better than to emulate the methods and procedure of The National Gallery. But the proposed institute would be only in part a museum. It would perform all the services of an art museum since, in order to carry out to the fullest extent its proper functions, it would house and exhibit the art of the World War.

This art would be used both for its esthetic value and to broaden the base of the Institute's program of education. Its museum functions would only be a part of the Institute's program but they would be a necessary part, just as its library of world War literature and its collections of films and photographs and its war materiel would be

necessary to the fulfillment of the Institute's purpose.

THE PURPOSE OF THE INSTITUTE

The purpose of the Institute would be to fill a gap in our educational opportunities which is now only filled by special institutions. No doubt anyone determined to secure some idea of the global strategy which sets the World War apart from other wars could do so by making a special effort to study and attend lectures given by technically trained members of the Armed Forces. Yet no one can begin to understand the World War without some general conception of global strategy.

Our proposed Institute would place great importance on a continuing series of lecture courses which would deal not only with the historical, technical, strategic and governmental aspects of the World War, but would also take up the international phases of the World War. In other words, the purpose of the Institute would be vigorously to teach American citizens the full meaning of the event in our history which has transformed our world position.

THE BEST USES OF THE MATERIAL TO BE PLACED AT THE DISPOSAL OF THE INSTITUTE

In order to indicate how the Institute will use the material at its disposal, let us imagine a specimen exhibition and think of it in connection with the lectures and more informal talks to be given throughout the exhibition.

Take, for example, any significant phase of the Italian Campaign. To illustrate this the Institute would have its collection of war paintings, its moving pictures, its still photographs, its literature, and its specimens of the materiel employed in the cam-

paign. A comprehensive exhibition designed to attract and inform the public while meeting the demands of the technician would then be arranged.

The exhibition would of course be widely publicized and during the six weeks or two months for which it was set up lectures by military, naval, air experts and lectures by historians and art experts would be planned for the further education of the people. And all the varied material in the Institute, its books and photographs and paintings, as well as its war equipment pertaining to the subject of the exhibition, would be clearly placed at the disposal of the Institute's visitors.

The presentation of every exhibition would be a matter of supreme importance to the Institute.

The aim would be in the case of each exhibition to attract the attention of the layman and lead him toward further study. But undoubtedly the Institute would acquire more materiel than it could use constantly in exhibitions. It is therefore proposed that materiel and other potential exhibits not needed by the demands of special exhibitions should be arranged in amply lighted space where technical students wishing to go further than the layman could carry on their special studies.

A MODERN BUILDING AND MODERN METHODS

To function well the Institute should be housed in a modern building with movable walls, such as exist in the Museum of Modern Art in New York, for example, because the very nature of the Institute's exhibitions requires the maximum of architectural elasticity. A thorough study of modern methods of lighting and modern methods of display should be made in order to take full ad-

vantage of new inventions in both of these fields. The building should contain all of the necessary devices to lift and move heavy material.

THE LESSONS OF WAR

While the Institute would naturally commemorate the great achievements of the World War and would teach the public much about the war that it could not otherwise learn, the effect of such teaching would act as a powerful antidote to war. Indeed, this would be one important purpose of the Institute, to be a power for peace.

Since no one war is a disconnected event in history, the material placed at the Institute's disposal should not be limited to the period of this war, and its lecture courses and other activities should also cover a broad field. No one can understand the World War without having more than average world knowledge, that is to say, knowledge of the conditions of other countries, of their political methods and of their economic ambitions.

BACKGROUND MATERIAL

To understand the true relation of the United States to the World War it would help us to know the general economic and political and war history of this country and the Institute could make active use of paintings, illustrations, photographs, books and a certain amount of war material applicable to former wars. A study of the growth of American production and transportation would make it easier for us to grasp the global scale of our World War transportation problems.

STAFF PROPOSALS

At the head of the Institute would be a Director of proved scholarship and administrative ability—a man of national reputa-

tion. Working with him would be the navy and army technicians and the historians and curators indicated by the Institute's needs.

There would be heads of the various departments—paintings, moving pictures and photographs, library, lecture courses and an editor of publications. The publication branch of the Institute might easily become extensive and of high importance.

Very necessary to the proper functioning of the Institute would be the Director of Exhibitions—a man of imagination and invention, trained to direct his staff of skilled craftsmen to build and arrange effective exhibitions and to develop new ways to make them clear and attractive to the public.

The Director of the Institute would be a man of such influence that he could call upon the services of the faculties of West Point, Annapolis and other schools and universities for lecturers and writers. He should also be able to attract the services of the most distinguished experts in the various branches of the government.

* * * *

NOTES ON ESPRIT DE CORPS

Introduction

Much of whatever practical value can be derived from the contents of this department, "Notes and Antiquities," lies in the stimulation it can give to the study of *esprit de corps* and of its application within the armed services. With that thought in mind I have undertaken to explore the topic in a series of notes, to try to sift what is sound from what is buffoonery, and to point to ready methods of utilizing this vital force. Outside contributions to the study are very welcome.

At the outset it would be well to make a few general observations. First, *esprit de corps*, as it affects the individual fighting man, is merely one ingredient of his personal *esprit*—his morale. This morale is dependent upon numerous other factors which range from confidence in his superiors and in himself to the string beans he had for dinner. We may disagree as to the relative importance of these factors under particular circumstances but not that they all exist in some measure and must be considered. Nothing said hereafter should be interpreted as indifference to the other factors of morale or as suggesting less attention be paid them.

The second point I would like to make is closely allied. If *esprit de corps* is merely one of the ingredients of individual morale, it is not an isolated ingredient and should not be treated as such. The soldier's sense of mission and his belief in a cause, his self assurance, and his conviction of individual usefulness, for example, are inextricably tied in with his feelings toward his unit. And just as morale is interlocked with command and discipline, so are all three interlocked with *esprit de corps*. For the purpose of study we shall have to disentangle the threads, but in so doing the mutual interdependency of these factors must not be lost sight of.

My third point is that *esprit de corps* should not be studied solely in terms of the individual; the words themselves mean the *esprit* of a unit, and I submit that we have something here that can mean more than the collective *esprit* of its members. I don't honestly expect to make much of this point right now. Understanding it presupposes an appreciation of something I shall call "unit personality," and there are few in this country who sense it. Due perhaps to our keen appreciation of the dignity of the individual we tend to overlook the innate personality of the organization. We think of a university,

for example, as merely a body of students, some professors, Gothic buildings and a football team. So I shall not belabor the point at this time but rest with the suggestion that military units can and do have a personality and an *esprit* all their own. Obviously *esprit de corps* is not confined to the military. Called by various names it exists to some degree in all forms of human organization.

UNIT TRADITIONS

It seems clear to me that *esprit de corps*, both in its unit and individual application, can be stimulated artificially, and that so long as the basic ingredients of the stimulation are healthy, valid and skillfully applied the effect will be successful. Unit traditions and customs, distinctions in uniform and insignia, colors and standards, are all means of artificial stimulation—they are all forms of symbolism employed in building *esprit de corps*. Their effective use, however, is not a matter of snap judgment. Doubtless there are some leaders who can hit the right note by instinct, but most of us require lots of tools and training. Actually, to be applied successfully, the stimulation of *esprit de corps* calls for careful study on the highest levels of command. Too many attempts have proved ludicrous failures and served only to discredit *esprit de corps* further in the eyes of the Army. In the last war Americans in general were scornful, or dubious, or wholly ignorant of its potentialities, yet there was evident a vague groping for knowledge of the subject. When a cross section of company grade officers of three infantry divisions were officially questioned in 1944, seven out of ten stated that they needed more training in how to develop a feeling in pride of outfit among their soldiers. Seventy percent thought most officers gave too little attention to this matter. In fact, this deficiency in building *esprit de corps* loomed more serious

in the minds of these officers than the failure to teach the men a belief in the cause for which they were fighting, job assignment, training in weapons, and any other weakness of instruction.¹

Finally I wish to point out that methods of stimulating *esprit de corps* in one type of military organization will be widely different from the methods used for another type. Patently the Army—and I believe the same can be said for all the armed forces today—has outgrown its britches. Too many of its men and women are considered soldiers and wear uniforms who are not soldiers at all. Conditioning morale in a combat unit overseas and in a service organization in the Zone of the Interior are tasks poles apart. Until the Army is redefined it will be necessary constantly to keep in mind the sort of unit we are talking about when we treat with its *esprit de corps*.

CONCLUSIONS

I hope these brief introductory observations may serve to clear away some of the cloud of doubt and contempt which presently surrounds this topic. At least they may point to lines of investigation. In a brilliant article on the subject in the *Infantry Journal*, the military historian Colonel S. L. S. Marshall opened with the suggestion "that we disregard the organization and consider the man."² Correctly he stated that *esprit* for too long had been regarded as something bequeathed to a military organization by the dead hand of tradition, and he redefined it as "dynamic and vital substance conducted to the living by the living." His next words were peculiarly significant. He asked his

readers to banish from their minds forever the idea that *esprit de corps* was what the man gave the regiment. "*Esprit*, at all times, is what the regiment or corps gives the man, in terms of spiritual forces translated into constructive good."

I propose to reverse Colonel Marshall's attack on the problem and consider first of all the organization and then the man. It seems to me that if the giving is as one sided as he maintains—I don't necessarily agree it is—then the organization deserves the first treatment. At all events, it's a fresher point of departure and will, I think, make the subsequent treatment more understandable.

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NOTED HISTORIAN DIES

Sir Charles Oman, 1860—1946

On June 24, 1946, Sir Charles Oman died at the age of eighty-six. No man living at the time could with greater justice be called the dean of military historians, and with his passing the English speaking countries lost one of their most distinguished scholars of warfare. Sir Charles' range of interests was remarkably wide. He was President of the Royal Historical Society from 1917 to 1921, of the Royal Numismatic Society from 1919 to 1930, and of the Royal Archaeological Institute from 1927 to 1937. Throughout most of these years he was Conservative Member of Parliament for Oxford University, where since 1883 he had been a Fellow of All Souls College. To all of these fields he made substantial contribution.

Americans are likely to remember Sir Charles principally for his *A History of the Art of War in the Middle Ages* and its sequel *A History of the Art of War in the Sixteenth Century*. The first came out of a

¹U. S., War Dept., *What the Soldier Thinks*, No. 3, pp. 13-14.

²Lt. Col. S. L. A. Marshall, "Esprit," in *Infantry Journal*, September 1943.

prize essay done in 1884, then expanded into a volume covering warfare from the fall of the Roman Empire to the fourteenth century. The work was in turn extended to two volumes, published in 1924, which included a vast store of new material and brought the coverage through the end of the fifteenth century. Thirteen years later the author added the next century in what is probably his most balanced and interesting treatment. Some reviewers have deplored this technique of progressive emendation, and it does stand out in sharp contrast to the methods of Delbrück and Kromayer, but it has nonetheless given us the most authoritative and detailed studies of the field in the English language.

BRILLIANT CONTRIBUTIONS

The British military historian and antiquarian has Sir Charles to thank for a monumental, six volume *History of the Peninsular War* (1902-22). In writing it he made use of an enormous mass of archival material, he made repeated journeys to Spain to study the terrain at first hand, and he explored exhaustively into Wellington's military organization and institutions. Out of this last research came his masterly *Wellington's Army, 1809-1814* (1912), an army administrative history that is a model of its class. To the organization, administration, and tactics are added sections on the allied German and Portuguese regiments, and on the character

and abilities of the various commanders. Here the author illustrated his deep concern for the human factor in armies. In this regard his writing never faltered. His knack for the vivid portrayal of personalities, his versatility and scholarship, are demonstrated succinctly in a delightful collection of short pieces published in 1930 under the title: *Studies in the Napoleonic Wars*. It might well be made required reading for all military historians.

FREDERICK P. TODD

QUERIES

FRENCH REGIMENT IN THE SERVICE OF SOUTH CAROLINA: I have seen reference to a "French Regiment in the service of South Carolina" during the later years of the American Revolution. Apparently one of its colonels was M. le Marquis de Bretigny during the period when he was residing at St. Pierre in Martinique as the agent of either North or South Carolina. De Bretigny, like Lafayette, was a French volunteer and his services had been accepted by Benjamin Franklin and Silas Deane. He was not as fortunate with the Continental Congress, however, for that body consistently refused him a commission in the Continental Army. What was the nature of this "French Regiment?"

R. de T.L.

The Military Library

THE SPECIAL STUDIES OF THE WAR PRODUCTION BOARD

BY MENO LOVENSTEIN*

Conceding that we should learn from history, it is not easy to find what history teaches. The tremendous task of writing the official history of the war effort illustrates how difficult it is. The Special Studies of the War Production Board, which are the subject of this review article, clearly demonstrates the virtues and defects of the present program and indicate what needs to be done if the lessons of history are to be learned by those who need to know them. The following studies are covered:

- No. 4. *Evolution of Premium Price Policy for Copper, Lead, and Zinc, January 1940 to November 1943*, by Charles M. Wiltse. First issued December 10, 1943; re-issued February 22, 1946.
- No. 6. *Resumption of Production of Domestic Electric Flat Irons, April 1943 to August 1944*, by Drummond Jones and Mary Claire McCauley. First issued August 31, 1944; re-issued March 1, 1946.
- No. 8. *Lead and Zinc Policies of the War Production Board and Predecessor Agencies, May 1940 to March 1944*, by Charles M. Wiltse. First issued March 31, 1944; re-issued March 1, 1946.
- No. 10. *Mercury Policies of the War Production Board and Predecessor Agencies, May 1940 to March 1944*, by Charles M. Wiltse. First issued June 3, 1944; re-issued March 8, 1946.
- No. 11. *Landing Craft and the War Production*

Board, April 1942 to May 1944, by George E. Mowry. First issued July 15, 1944; re-issued March 8, 1946.

- No. 12. *Policies Governing Private Financing of Emergency Facilities, May 1940 to June 1942*, by Ethan P. Allen. First issued September 20, 1944; re-issued March 15, 1946.
- No. 13. *Farm Machinery and Equipment Policies of the War Production Board and Predecessor Agencies, May 1940 to September 1944*, by James A. McAleer. First issued November 10, 1944; re-issued March 15, 1946.
- No. 14. *Concentration of Civilian Production by the War Production Board, September 1941 to April 1943*, by Mary Claire McCauley. First issued November 25, 1944; re-issued March 22, 1946.
- No. 15. *Development of the Reconversion Policies of the War Production Board, April 1943 to January 1945*, by J. Carlyle Sitterson. First issued February 26, 1945; re-issued March 22, 1946.
- No. 16. *Alcohol Policies of the War Production Board and Predecessor Agencies, May 1940 to January 1945*, by Virginia Turrell. First issued April 21, 1946; re-issued March 29, 1946.
- No. 17. *Truck Production and Distribution Policies of the War Production Board and Predecessor Agencies, July 1940 to December 1944*, by George W. Auxier. First issued May 23, 1945; re-issued March 29, 1946.
- No. 18. *Shipbuilding Activities of the National Defense Advisory Commission and Office of Production Management, July 1940 to December 1941*, by Charles H. Coleman. First issued July 25, 1945; re-issued April 5, 1946.

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- No. 19. *The Facilities and Construction Program of the War Production Board and Predecessor Agencies, May 1940 to May 1945*, by Reginald C. McGrane. First issued November 2, 1945; reissued April 5, 1946.
- No. 20. *The Role of the Office of Civilian Requirements in the Office of Production Management and War Production Board, January 1941 to November 1945*, by Drummond Jones. Issued May 15, 1946.
- No. 21. *Aircraft Production Policies under the National Defense Advisory Commission and Office of Production Management, May 1940 to December 1941*, by J. Carlyle Sitterson. Issued May 30, 1946.

These special studies constitute only a part of the historical program of the War Production Board. In addition, there will be an overall history of the board; the minutes of the National Defense Advisory Commission, the Office of Production Management, the Supply Priorities and Allocations Board, and the War Production Board; a chronology of the War Production Board and its predecessor agencies; a directory of the executive personnel of the War Production Board and its predecessor agencies; and a Policy Documentation File. The complete program will also include a series of special monographs on the reconversion and demobilization policies of the Civilian Production Administration and a one-volume general history of the agency's activities from November, 1945, when it superseded the War Production Board. The completion of the work will likely extend late into 1947.

The special studies considered in this review are reissues of earlier ones. Some of them have been extended to cover later periods; for others there is a notice that they will be extended; for still others, the present revision appears to be final.

An examination of the titles indicates the coverage of these studies. Each of them, to

quote the foreword, "endeavors to treat in some detail an area of the War Production Board's operations that was particularly significant during the war and that has continuing importance for the understanding of administrative and economic problems and for the planning of industrial mobilization."

Reading them, one glimpses again the magnitude and complexity of war economics. Here again are the dramatizations of supply and demand raised to higher intensity by the great crisis, the added burden of conscious control and the hysteria of opening nights without benefit of rehearsal. How intricate and immense these responsibilities were: the expansion of facilities; the increased production of metals, aircraft, ships; the wartime concentration of production struggling against peacetime rigidities; subcontracting and standardization which tended to make of all America one gigantic, integrated factory.

A final appraisal of these studies must wait until the entire historical program of the War Production Board is completed. It is rather difficult to appraise the parts alone, yet from a reading of over 2,000 pages of these studies, a number of comments seem appropriate at this time.

Each of these studies contains a chronology of the major events of the problem area covered. Actually, each study is merely a detailed chronology or chronicle. One of the covering letters states that "the report is based entirely upon records in the custody of the War Production Board and upon interviews with officials of the Board." It goes on to say that the report is intended to be "objective history but is not designed to be as comprehensive as would be a history that covered all agencies' activities . . . and drew its data from all relevant records and all informed officials of such agencies." A similar statement is made in nearly all the other reports and properly characterizes them.

Within the narrow limits they set for them-

selves, these studies are good, often excellent, "office histories." For the most part, they are well written. Many of them tend to become anthologies of quotations from routine letters, memoranda, and minutes—hardly sources of inspired prose or even apt summary (e.g., Special Study No. 20 on civilian requirements). A few tell a good, straightforward, analytical story (e.g., Special Study No. 14 on the concentration of civilian production). Yet they all remain chronological accounts from limited source materials and not histories or even critiques.

Each account begins with a brief introduction to pre-war conditions. As events move on, the actors appear, express their opinions on the issues of the moment, then resign or are promoted (a study should be made of this subtle difference!). The reporting is full but the historians contribute little or nothing in the way of analysis, appraisal, or weighting. In this respect, the studies resemble a famous painting of Lee and his generals which achieved objectivity by representing all of the generals as of equal height.

Yet, read together, certain characteristic experiences stand out. Time and again, one is struck by the fact that men of high calibre, for one reason or another, were prevented from performing at their best. Usually they were begging for information. It is startling how frequently and how long a man in charge of an agency or a division complained that he did not know just what his duties were—for example, the unresolved conflict over civilian and military supply. Often after operating for some time, he plaintively confessed that he no longer understood what his rôle was. And all during the war, officials cried continuously for better organization and coordination, failing to establish liaison with groups obviously concerned with the question. Indeed, one could make an excellent study in itself of the time it took a new

agency to find out what it was supposed to do and to get started on its task.

Yet, in spite of the deficiencies of definition and coordination, the studies also demonstrate how quickly the alternatives in any given situation were clarified. The participants were able to state quite clearly which of the possibilities they supported. As a chronological catalogue of these alternatives, the studies render a real service. Their failure consists of not emphasizing the development and continuity of these ideas and in summarizing and appraising them. As it is, even a careful reader will have difficulty following the twists and turns of opinions and he must perform for himself, as an amateur so to speak, what should have been done for him by the author. Special Study No. 14, cited above, proves this service can be performed, for it has a good analytical introduction and summary. Most of these studies do not have.

Without effective analysis and summary, time will seriously affect the clarity of these studies. At present, we are still familiar with the war organization of World War II. Names such as Nelson, Henderson, Wilson, Eberstadt, and Patterson stand for viewpoints which are fairly well remembered. Even dollar and production figures fit into our present sense of values. A mass of familiar context and recent experiences make these studies much clearer than they will be five, ten, or twenty-five years from now, when they may be needed.

If, when needed, these studies are consulted by the administrator summoned from the ranks of management or labor, he will find inadequate guidance. If he has time to read through the special study in his own field and can fit it into the picture as it was in 1946, he will have a good catalogue of the ideas which a similar situation evoked before. But the list of commonsensical solutions brought together in these studies and not

appraised will not differ much from the ideas which will arise again in a similar situation. Unless such ideas are analyzed and judgment passed upon them, not much is gained from such a museum of opinion.

The difficulty arises because too little attention is given to the continuum or "follow through" of scholarship. It is assumed in the natural sciences that, the facts having been established through experiment, they will be incorporated into textbooks and into current knowledge and practice. General awareness, the integrity and competition among texts, and the commercial usefulness of such facts operate, somewhat loosely, to assure that a body of knowledge will be kept up-to-date. In the social sciences, with less exactness and with greater problems of persuasion, there is less assurance that a body of tested experience will be incorporated into current beliefs and practice. The task of learning from history is, therefore, not fully performed when the lesson is recorded in a monograph. It requires an appreciation of the mechanics of learning and teaching from the first stages of the collection of evidence to the final step of acceptance in daily life. Any break in the chain of development and transference creates the illusion that the lessons have been learned and gives false security about our efforts in recording them.

The historical program of the war effort must be completed with these considerations in mind. It makes all the difference whether the general history and the special studies are to be used by subsequent scholars who will later derive general principles or whether these studies are likely to remain end-products.

If these studies are merely first steps in the development of principles, it will change the form and content of them. These special studies then become monographs in a very elementary sense. Even as well done as they

are, within their own narrow limits, they must never be misunderstood or misused as a final word. As primary summaries of office records and personal interviews, the accounts should be fuller, going into greater detail about the mechanics of gathering information and the technical problems of administration. They should include sample forms and a full description of operational procedures. They should explain in detail the problems that arose with regard to prices and production, the establishment of premium price policies, and labor problems. As mere collections of materials for use in further study, they cannot afford to be merely illustrative. The common factors of conflict of personalities, empire building, vested and tainted interests, etc., may be assumed and emphasis should be placed upon the technical problems and the suggested and successful solutions. In brief, they should be a summary of tested experience rather than a running account of a particular mobilization.

Students of war economics could use these full studies or compendiums along with those of other agencies, testing the conclusions of one against the other, and arriving, at long last, at what seems to be the principles of industrial mobilization in general and their specific applications. To accomplish such a task, there would have to be a large number of military economic historians—a new kind of specialist. Spearheaded by the Industrial College of the Armed Forces, it would require in addition many such specialists not associated with a military institution. After these conclusions have been reached, we must be certain that the lessons of history are taught to management, labor, and government personnel who some day may have to shoulder the responsibility of industrial mobilization. Obviously, if the history and special studies are to fit into such a picture, their form and content will have to be modified accordingly.

Unfortunately, we will probably not have such foresight. Sufficient attention will not be paid to military economic history. The staff of the Industrial College will be much too small for such a huge responsibility. These histories and special studies will find their way into archives so that, for the most part, the history of the war effort will remain a tremendous collection of unintegrated histories and special studies. We may presume, then, that these chronologies will be, in most instances, the final word. It is even possible that decreasing personnel and funds will cut short even present ambitions. It is, therefore, extremely important that these accounts should have full analytical summaries of the problems. The summaries should not be largely a recapitulation of dollar amounts or quantities of items produced but the nature of the solutions which made increased production possible. As far as possible, the principles should be lifted clear of the particular historical setting of World War II.

In a future emergency, the administrator in charge of alcohol or facilities expansion or civilian supply will want to know, in a word, what lessons the last war taught; what, in brief, should he look out for. He should have within quick and easy grasp a statement about the difficulties created by lack of definition and conflict of authorities, the major phases through which a particular responsibility is likely to pass, etc. With these in mind, he can then, if he has time, read the "history" of the last war and find illustrations of previous experience which will sharpen his outlook.

Since these special studies represent a revision, it is suggested that all histories and special studies be regarded as in semi-final form. When the entire historical program is complete, that of the War Production Board and the other war agencies, each study can then be finally revised. With good analytical summaries, the careful scholarship which

characterizes most of these studies would not be wasted for want of clear definition of the likely role these studies will play. If the general histories will have characteristics similar to the special studies, the same caveat should be applied.

The ostensible purpose of these studies is to show the problems involved in industrial mobilization, yet these studies will yield much insight into peacetime economic problems. In peacetime, the superagencies combining management, labor, and government are not established by law or executive order, yet they continue to exist in less tangible or manifest forms. Beneath the war paint, one can recognize many familiar faces; the control of prices, the relation of prices, wages and production, indeed, the determination of civilian requirements. War and peace economics have as common denominators the structure of our economy, the concentration of production, the pattern of sources of raw materials, etc. Students of economics will do well to study these valuable monographs for insights into the way our economy works both in peace and war.

BOOK REVIEWS

Bastogne: The Story of the First Eight Days in Which the 101st Airborne Division Was Closed Within the Ring of German Forces, by Colonel S. L. A. Marshall, Captain John G. Westover, and Lieutenant A. Joseph Webber. (Washington: The Infantry Journal. 1946. Pp. 261. \$3.00.)

Considering this book for what it is, an exceedingly readable account of a series of small dramatic military actions related more by circumstances beyond the control of the defensive forces involved than by the design of a single commander, it would appear almost coincidental that its author or authors were the Historian of the European Theater of Operations and his assistants. Rather, the prerogatives of the Historian, European Theater of Operations, afforded an excellent newspaperman at Bastogne an unparalleled

opportunity to exercise his particular gift and to perfect further a technique for recording individual and small unit reactions to battle. This is not to say *Bastogne* should not have been written or published, but it may explain partially its appearance under semi-official auspices rather than as a monograph in the "American Forces in Action Series" of official War Department publications.

Military actions have not become easier to describe in a clear and logical manner as techniques and implements of war have changed. The excellent detail and clarity of presentation of individual engagements (in this account) are a tribute to the principal author and to the post-battle interview procedure which he has so greatly shared in developing and which he has here employed to such good effect. Nevertheless post-battle interviews, however well synthesized and corroborated by currently available records, are not likely to be sufficiently objective to be classed as history. They do represent highly significant source material later to be exploited in writing history. One may accept the general thesis that "on the day of battle truths stalk naked . . . ;" but this does not make them less difficult to recognize on the day after nor does it insure truth in synthesis or in correlation of accounts of a number of eye-witnesses of, or participants in, a particular action.

I shall always deplore the format of a documented narrative which does not carry the footnotes on the pages to which they relate. Particularly in a battle narrative does the reader wish to be able at a glance to know by what authority, who says so, or where and when was a statement or fact recorded. The "Notes" to this book are particularly significant to an understanding of the text, and fifteen pages of them as footnotes would not have been excessively burdensome to 198 pages of narrative.

In the description of the individual infantry actions one does not gather that there was coordinated artillery support, probably because insufficient attention is given it as a whole and that without particular relation to the separately described infantry and armored engagements. The tank destroyers, on the other hand, come in for considerable mention, and one is much impressed with their apparent effectiveness. The uninitiated gets little sense of detailed coordinated direction from 101st Airborne Division Headquarters to say nothing of VIII Corps. This would appear to be the result of overemphasis on combat unit details

(one marvels at the mortality rate among jeeps—their larger armored brothers seem to have run over them repeatedly) and underemphasis on communications and field orders. Perhaps this represents the essential weakness of the interview technique when depended upon so largely as the basis of combat narrative.

The drawings of Technical Sergeant Olin Dows are excellent, as are the situation maps which show so effectively the tightening of the ring around Bastogne and keep the reader from becoming completely lost in the series of actions on the perimeter of the Bastogne defense. The drawings and action photographs might better have been placed in the narrative to illustrate the action or terrain as described. The ten pages of portraits of the principal participants together with the German propaganda illustrations are properly placed at the end of the volume. The reader will be struck, as was one of the German commanders, with the youthfulness of most of the principal officers figuring in the siege. The authors' convictions that "the record" prepared at the time provides the best evidence of the heroic achievement of the men who held Bastogne is fully justified.

SHERROD EAST,*
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The Absolute Weapon: Atomic Power and World Order, by Frederick S. Dunn, Bernard Brodie, Arnold Wolfers, Percy E. Corbett, and William T. R. Fox. (New York: Harcourt, Brace, and Company. 1946. Pp. 214. \$2.00.)

Five little humans come together in this book and try to pool their thoughts and come partially into view, through the fission-produced cloud, themselves disarranged, almost naked, cold, afraid. Perhaps they set out purposely to transmit their clammy fear. If so, they come close to succeeding. Fear, in fact, is so all-pervading in this series of essays that it is offered as about the only immediate basis for approaching a solution to the common problem of preventing a disastrous atomic war. They would establish initially a system of international fear—fear of retaliation—and they

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admit that this is insufficient. And the sixth little human gets off by himself and thinks "Maybe they are right, for after all isn't fear the very basis of the principle of survival of the fittest, indeed, of the first law of nature?"

But the essayists did not necessarily intend to produce this reaction. Mr. Dunn, the dean of the group, in his introduction, entitled "The Common Problem," points out that the authors simply want mankind to think now "and not wait until all the evidence is in."

Then Mr. Brodie begins to start the reader's thinking processes for him. His two chapters, the best in the book, are entitled "War in the Atomic Age" and "Implications for Military Policy." They make the book well worth the reading. But Mr. Brodie, after setting forth some indisputable facts about the absolute weapon, falls short of an answer to the problem well posed.

He is convinced that *"any city in the world can be effectively destroyed by one to ten bombs"* and that there is not and likely will never be an adequate defense against the bomb or a shower of bombs. Because of the possibility of the development of rockets as atom bomb carriers he believes that *"Superiority in air forces, though a more effective safeguard in itself than superiority in naval and land forces, nevertheless fails to guarantee security,"* and at the same time *"Superiority in numbers of bombs is not in itself a guarantee of strategic superiority in atomic bomb warfare."* Even so, through the building of a stockpile of bombs and letting all would-be aggressors know we have it, realizing that other nations too will soon have stockpiles of their own, we will be in fairly strong position to retain the peace. Thus, the "chief purpose" of our military establishment in the future is not to win wars but to avert them through standing ready to retaliate.

Having gotten this bit of reassurance off his chest, Mr. Brodie then says "Thus, our most urgent military problem is to reorganize ourselves to survive a vastly more destructive 'Pearl Harbor' than occurred in 1941" and this means that *"The ability to fight back after an atomic bomb attack will depend on the degree to which the armed forces have made themselves independent of the urban communities and their industries for supply and support."* It is, therefore, up to our military personnel to prepare to fight a war without much possibility of mobilization. Either that, or the nation must begin a program of dispersing

its cities, which Mr. Brodie almost admits is a silly idea. He is not very reassuring when he belittles the possible employment of hidden atom bombs timed to go off simultaneously in depot lockers, warehouses, factories, throughout the dispersed cities. He points out, though, that the Russians would be better at this than Americans despite J. Edgar Hoover.

Although he leaves his reader with this problem completely unsolved, presenting only the thesis of fear of retaliation as the strongest deterrent to future atomic war, Mr. Brodie throws out some leading thoughts which are quite significant and deserve further exploration. His description of the atom bomb, limited, of course, to released information, is simple and therefore good.

Mr. Wolfers in discussing political consequences of the atomic bomb advocates the building simultaneously of three lines of defense: (1) "proper efforts" to settle Soviet-American disputes and to avoid new ones; (2) international agreements and control; and (3) the threat of retaliation in kind. He is rather dismal in his further statements that, the first line showing ever present signs of being breached, we would need always to rely on the second. Here, though, he is defeatist in his predictions for he says, "if this country were to advocate the abolition of the veto rights . . . it would risk aggravating our relations with the Soviet Union most seriously. This would in turn mean undermining the first line of defense."

After some quibbling and going through the process of setting up straw men and knocking them down, Mr. Corbett, in continuing the discussion of political consequences comes around to supporting the United Nations but not until after he has expressed strong doubt that the United Nations will ever find a real solution. He too, therefore, falls back on fear of retaliation as the prospective savior of mankind most likely to succeed.

Mr. Fox introduces his frustrating contribution with a bright little saying attributed to G. K. Chesterton on noting the rising menace of Communism after World War I:

No more of comfort shall ye get
Than that the sky grows darker yet
And the sea rises higher.

"Mankind will pay a terrible price," he says, "if its leaders make the wrong choices in their efforts to achieve the social control of atomic energy." He would like to see "world government right now" but states that this is not a possibility, for world

government presupposes the destruction of nationalism and that is not acceptable to either the United States or the USSR. Such can not be brought about by voluntary agreement or by force. Two alternatives are presented: tell all the secrets about atomic fission and let every nation join an armament race; or do nothing. Neither offers any hopes; both are futile, except that the latter gives us a little time to think and to try out ideas (such as the Baruch proposal) and give the United Nations a little debating practice. Maybe they will find eventually a solution. But at the present outlook of things, "Only retaliatory action which was expected to be immediate and certain would be an effective deterrent against aggression committed with atomic weapons." Therefore, "The members of the United Nations should agree now to undertake instantaneous retaliation." This should be the first step. [Overlooked at this juncture in his discussion is the fact that only the United States has the bomb.] "The second step, the agreement for a drastic limitation on permitted atomic armaments and for a detailed and close inspection [which might some day be feasible] by an international agency of those armaments, may be taken when other nations have discovered independently how to produce the bomb." The third stage "of atomic arms regulation is clearly not for our own decade."

Rabid idealists will not like this book; neither will Communists and fellow-travellers; neither will those who feel that we must in no jot do, or say, perhaps even think, anything which might give offense to the USSR. Apostles of Mahan will not like Mr. Brodie's predictions as to the subordinate role of naval power in a future atomic war whether or not capital ships may be sunk by instantaneous atomic fission. Scholars who have already done a great deal of thinking along these lines will probably find the book confused and unconvincing.

From among other groups—from among those who are unmitigated realists or even those who are skeptical idealists, from among those who believe that in the twentieth century mass emotion is dominant over mass reason, from among those who believe that the age-old rules of Nature will inevitably triumph, from among those who look with horror upon the stark, ugly fact that our society has allowed the underpaid social scientist to be outstripped by the physical scientist, from among military personnel whose business, whose mission in life is the protection of our people—from among these groups many readers will find

this book thought provoking. That was the objective of the authors.

CLANTON W. WILLIAMS,*
Washington, D. C.

The Conquest of the Missouri, Being the Story of the Life and Exploits of Captain Grant Marsh, by Joseph Mills Hanson. (New York and Toronto: Murray Hill Books, Incorporated. 1946. Pp. 458, \$3.50.)

Major Hanson's biography of Captain Grant Marsh, "the finest Captain that navigated the upper Missouri" (General J. W. Forsyth's opinion), is a well considered re-issue of a work first published in 1909, and now claimed by its new publishers as a minor classic of the American West. It affords rewarding reading for those interested in the history either of sternwheelers or of Indian warfare during the opening of the Northwest. Considered purely as a contribution to river lore it merits, I do not doubt, all the enthusiasm of Captain Wright's new introduction, which cites it as "the most readable and worthwhile volume about the life of a riverman ever written. . . ." The dominant interest of the author, it seems to me, however, lay in his retelling (regardless of the point of view employed) the dramatic story of the military conquest of the upper Missouri River Valley and of the military subjugation of the hostile Sioux. Page after page, sometimes for entire chapters, Marsh's personal story recedes from consideration, indeed may be almost entirely lost from view. The "direct observations of a man in his [the Captain's] position," so the preface claims, "were generally and necessarily limited to his immediate surroundings, and the recital of his experiences alone during his years of activity in the Northwest would give to the reader but an indistinct impression of the conditions prevailing there and of their underlying causes." Hence the biographer's amplification of his protagonist's story with a full account of the upper Missouri region at the time of Marsh's activities there (the years mainly between 1864 to 1883). The principle title of the work thus proves to be more apt than its subtitle.

*Dr. Williams served as a colonel and the Army Air Forces Historian during the war. He has since returned to the History Department of the University of Alabama as a full professor.

Although military interest begins in chapter six with the Battle of Shiloh, the scene soon shifts to the region of the upper Missouri, where in the spring of 1864 Union troops were waging a vigorous campaign against the hostile Indians. As captain and pilot of various sternwheelers, Marsh frequently contracted himself thereafter to the Army for missions in connection with military maneuvers in the area; and his activities furnished a peg on which to hang an intricate and violent story of the extension of the white man's civilization there. Developments included Sully's expedition through the Sioux domain; vigilante committees in Montana; Army surveys of the upper reaches of the Missouri, the Big Horn and Little Big Horn, and the Yellowstone valleys; and Indian campaigns of Generals Terry and Miles, including the Custer massacre. The devices Major Hanson employs in his attempt to fill such a spacious canvas sometimes creak a little—as when, for example, in rounding off his treatment of the Army's struggle with the Sioux, he feels obliged to tell of events with which Captain Marsh had no real connection. A case in point is the burial expedition to Custer's battlefield. The defeat of Custer and Reno contributes a highlight to Marsh's story; and in his "race with death" in rushing the wounded to Bismarck on the decks of the *Far West* the Captain played a conspicuous part in that campaign. With the aftermath he had no connection whatever, except, as the author observes,



JOSEPH MILLS HANSON

he was naturally much interested in the results of the [burial] trip and became thoroughly acquainted with them through his friendship with Sergeant Caddle and other participants. It may therefore be excusable to mention here some facts concerning the work of the burial party which are vouched for by Sergeant Caddle, though they seemed to have remained practically unknown until the present time. . . .

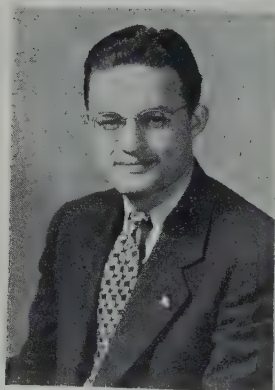
Thereupon follows a half chapter of interesting though only indirectly relevant detail.

In justification of such a course the author claimed in his preface that many of the events in his narrative had "never received more than passing attention from historians, and remain today practically unknown save to those who participated in them." Such an assertion may have seemed more pertinent in 1909, perhaps, than today after nearly a half century of Frederick Jackson Turner's industrious influence on frontier research. Though the author exercises genuine literary as well as historical conscience, the style of his book is sometimes dated, and it sometimes

slips. The average modern reader, I fear, is less impressed than his grandfather by the old fashion of poetic headpieces at the front of each chapter. The emotive tendency which sometimes characterize sentences of the book, as on the few occasions when the fairer sex appears, is mildly indicative of the "silver-threads-among-the-gold" current in the gilded age (e.g., "the death of the Captain's wife, his faithful companion for forty-six years, brought him a sorrow from which he can never recover, though he has not allowed it to embitter him toward the world nor to hold him back while strength remains to him from performing the duties of life"). Strain for effect has likewise crept into occasional passages rather purple with nationalistic feeling (e.g., "The Captain stood looking up at the crest of the Pillar, rearing itself majestically overhead and bathed in the sunlight of later afternoon, and the thought came to him that in such a place it would be eminently fitting to raise the Stars and Stripes, where the winds of Montana's prairies had never caressed them before. . . . Captain Marsh now went down to the boat, and securing the . . . flag, carried it to

the top of the Pillar, where he nailed it fast to a stout staff and left it, an emblem of Columbia's supremacy over the lonely land, to wave in solitary beauty, until the storm and wind should wear its fabric away"). But such minor imperfections subtract little from the total impressive effect of the book. The author's claim for Captain Marsh's incredible memory, even when an old man, is fortified by the illusion which the narrative creates not of constituting mere reminiscence but a vivid contemporary account. Interest is increased by the inclusion of thirty-six pertinent photographs and a special map of the upper Missouri River region indicating events and places discussed in the account. Also appended is a short bibliography and a name and subject index.

THURMAN S. WILKINS,*
Washington, D. C.



THURMAN S. WILKINS

The N. R. A. Book of Small Arms. Volume I: "Pistols and Revolvers," by W. H. B. Smith. (Washington: National Rifle Association of America; Harrisburg: Military Service Publishing Company. 1946. Pp. 638. \$10.00.)

This book is the first volume of four promised in an attempt to provide "an encyclopedia of

small arms as an international reference book"—see the foreword by the Secretary-Treasurer of the National Rifle Association.

Considering the scope of the project, the objective is indeed an ambitious one and well worthwhile for reference use. The book is not one which can be recommended to the general reader; it can be recommended to the diligent and intensely interested student of hand firearms. There are surprisingly few errors for a volume of such size. The student will appreciate the absence of major factual errors and should welcome the absence of the legends and anecdotes which are customary in books on pistols and revolvers.

While there is a great amount of useful data in the book, it appears to be somewhat inadequately arranged; for example "Cartridge Data" appears on forty-nine different pages from page 57 through page 537. It might be much more useful if it had been segregated and put in tabular form by calibers. Space saved could have been used profitably by increasing the inside margins, thus facilitating handling and reading.

The magnitude of the task involved in preparing a compendium of information on small arms is perhaps not evident on first thought, but a simple count of the items included in Appendix I shows there are two hundred and twenty-nine "miscellaneous pistols" and these are not all by any means. To prepare a *complete* encyclopedia would require the work of many men over many years. The book is a creditable first attempt, but it is not and never can be "the last word."

RENE R. STUDLER,*
Washington, D. C.

Walther Pistols, by W. H. B. Smith. (Harrisburg: Military Service Publishing Company. 1946. Pp. 100. \$2.00.)

Perhaps this book indicates an increasing public interest in small arms in view of the number of volumes by other authors which have appeared recently. A return to the early situation in this country described in the letter from John Thurman quoted in part on the first page would indeed be a reversal of the current public attitude.

*Mr. Wilkins, long a student of Western history, is now Chief of the Historical Records Section, The Adjutant General's Office.

*Colonel Studler is Chief of the Small Arms Development Branch, Research and Development Division, Office of the Chief of Ordnance.

The brief history of the arms industry in the Suhl area is notable as showing the effect of nearby natural resources on the growth of an activity.

The book contains a mass of technical descriptive data relating to the Walther pistol which will no doubt be of value to the student of hand firearms. It gives information on the entire line of seventeen Walther pistols covering characteristics of operation and ammunition. In addition, manufacturing changes resulting from the late war which may affect reliability are described.

RENE R. STUDLER,
Washington, D. C.

Empire and the Sea, by Fletcher Pratt. (New York: Henry Holt and Company. 1946. Pp. 429. \$3.50.)

Fletcher Pratt's remarkable talent for vivid description of naval actions brings new life to the Anglo-French wars at sea between 1793 and 1805. From the "Glorious First of June" to Trafalgar, he has shown his usual combination of skill in clear analysis and use of myriad details to bring out realistic pictures of those great sea fights. The strategy which lay behind them is also particularly well done. In this connection, the explanation of the Trafalgar campaign, from both the British and Franco-Spanish sides, is excellent. Diagrams by Inga Stephens aid further in visualizing what happened. One may trace, too, the effects of experience and selection in bringing better British leaders to the fore as the war years went on.

While naval affairs dominate the book, they do not monopolize it. Like his earlier study of Napoleonic France, it aims to give a general picture of wartime England, but those results are less substantial and much less fortunate than Arthur Bryant's *Years of Endurance* and *Years of Triumph*. Although this work is launched almost on top of Mr. Pratt's volumes on the recent war, its keel was laid seven years earlier; it was sidetracked for his prolific output describing the events of World War II.

ROBERT G. ALBION,*
Princeton, N. J.

*Dr. Albion is Historian for Administration, Office of Naval History, Navy Department.



FLETCHER PRATT

The Wilson Era: Years of War and After, 1917-1923, by Josephus Daniels. (Chapel Hill: The University of North Carolina Press. 1946. Pp. 654. \$4.00.)

This entertaining and lavishly illustrated book might have been a genuine contribution to the history of naval operations and administration. It is not given to many men to serve as Secretary of the Navy for eight years, including one world war, and then live to see many of the same problems reappear in a second. Far from being such a contribution, Mr. Daniels's volume, his fourth of autobiography, is a highly misleading one which, unless used with utmost caution, will obscure rather than inform.

With many of the interesting topics discussed—the Peace Conference, the treaty fight in the Senate, Wilson's illness and the 1920 campaign—this review is not concerned, except to say that on none of those points does the author add significantly to our knowledge. Readers of this journal will prefer to concentrate on naval topics, for no specialist can accept the laudatory notices of this

work now appearing in newspapers and other periodicals.

The treatment of the Navy's role in the first World War is neither systematic nor novel. It is a condensation in about a hundred pages of Mr. Daniels's *Our Navy at War*, published in 1922. The chapter headings, the phraseology, the emphasis and even the tone are identical or similar. The major efforts of that conflict, such as anti-submarine warfare, overseas transportation, and the mine barrage, receive conventional handling; while the usual bouquets are tossed to every branch of the service. In this roseate picture everything seems to have gone right and nothing wrong. Such a view was excusable in the first flush of victory, but in 1946 we are entitled to a more critical and constructive account.

The chapter on the "Sea Battle of Paris" contains no fresh information. The author was in a unique position to know what really happened when Lloyd George tried to force Wilson, by his threat not to support placing the League Covenant in the treaty proper, to curb American battleship construction. But Mr. Daniels is here so engrossed in criticizing British ambitions and in inveighing against the Washington Conference that he ends his story on April 7, 1919, without even mentioning the all-important House-Cecil exchange of notes which two days later effected a temporary Anglo-American naval truce. Throughout these pages he confuses the proposed three-year bill of 1919 with the act of 1916. A reading of the Sprouts or Paul Birdsall would have told Mr. Daniels more about the episode than he can remember.

Equally disappointing are the twenty-three lines allotted to the establishment in June, 1919, of two independent Atlantic and Pacific Fleets, equal in numbers, types, and firepower. This momentous step, contemplated since the days of Mahan and Theodore Roosevelt, created knotty problems in organization, administration, and logistics, all the more since it was undertaken in a period of demobilization. Of the widespread discussion provoked by this move we are told not a word. Nor is it related why this short-lived experiment was terminated in December, 1922.

Perhaps the most unsatisfactory part of the book is the summary of the Senate investigations of 1920. Today, beneath the 4,000 pages of testimony, partisan and otherwise, set forth in the hearings on the award of medals and the naval lessons of the war, one can clearly see honest differences of opinion; but no reader of Mr. Daniels



JOSEPHUS DANIELS

will be aware of the fact. In 1920, with his record under fire, the Secretary may have been justified in hitting back with every weapon at his command; but a quarter-century later, when another war has substantiated some of his critics' charges, we have a right to expect more than a reiteration of earlier statements, more than a glossing over of the opposition's views, more than an imputation to Admiral Sims of the basest motives. It simply is not true that Sims, with the Republicans, wanted to smear the Navy because Wilson and Daniels "had not accepted British Naval policies and had refused to let Sims accept honorary membership in the British Admiralty." However difficult a subordinate Sims may have been, his objective in 1920 was the same as it had been throughout his stormy career—a better organized Navy Department. Actual membership in the British Admiralty was, moreover, never suggested but rather an arrangement that would have foreshadowed Franklin D. Roosevelt's own creation of 1942, the Combined Chiefs of Staff.

Naval historians, then, will find this book disappointing and dangerous. It is crammed with factual errors and inaccurate statements. A distinct anti-British tone is evident. Every reference to Sims should be checked against Elting Morison's admirable biography, and no credence should be given to the accusation that Sims was responsible for a copy of the Versailles Treaty finding its way prematurely into the Senate. This reviewer cannot but conclude that the safest course for anyone studying the important secretaryship of Josephus Daniels is to ignore this volume and go back to the original sources.

RICHARD W. LEOPOLD,*
Cambridge, Mass.

History of the Modern American Navy, From 1883 Through Pearl Harbor, by Donald W. Mitchell. (New York: Alfred A. Knopf. 1946. Pp. 477. \$4.50.)

Dr. Mitchell's book covers the important years from 1883 when the Navy was practically nonexistent to the outbreak of the recent war in which the United States became the world's greatest naval power. He traces the story of the modern Navy from its inception through the vicissitudes of the formative years in the nineties, its proving in the Spanish-American War, the rise under the first Roosevelt, the part it played in World War I, its decline subsequent to the Washington Naval Conference, and its gradual resurgence during the thirties to the tragedy at Pearl Harbor. It is a book which will be read with lively interest by those who have had personal contact with the Navy and by all others who want a compact account of some of its most important years.

Heretofore there has been no single volume purporting to cover the Navy during this particular period, and this book is consequently a welcome addition to the shelf of American naval historiography. Excellent accounts have been written covering parts of the Navy's history, such as operations during various wars or phases of administration, but to get the whole story was almost impossible from any one work. It is this gap which Dr. Mitchell has sought to close, with considerable success.

*Dr. Leopold is an assistant professor of History at Harvard University. From 1942 to 1946 he was on duty in the Office of Naval Records and Library, Navy Department.



DONALD W. MITCHELL

Throughout much of the book, however, one has the impression that the author, in writing a new and general account, has not seized his opportunity to present a new interpretation of the material. The reason for this is probably nowhere quite so evident as in the preface, in which the usual acknowledgments are made to the institutions where research was conducted. There is no mention of the National Archives, where the great bulk of the original source material on the Navy during this period is deposited. Research in that collection would undoubtedly have furnished material on which new interpretations could have been based, and the value of the book would have been enhanced considerably. As it stands, the work is actually an introduction to the modern American Navy.

Such a plan for a general account has the positive virtue of objectivity, but unfortunately Dr. Mitchell chose at times, particularly in his later chapters, to depart from it. This lack of objectivity is evident in the overemphasis of the question of costs of naval vessels built by the private shipbuilding companies. The relations of the companies and the Navy Department in the decade or

so prior to World War II are the subject of stiff criticism on the part of the author, who finds the department entangled in a net of high costs and of delays in getting out the contracts. There can be no doubt that the subject has its place, but, as a matter which has long claimed the author's attention, it is obviously overstressed. The complexities of it are such that it is impossible to present them clearly without devoting even far more space than is allowed in this account. The extremely interesting subject is worthy of sound, thorough, historical treatment on a plane from which books of this nature can draw.

A number of unfortunate defects, such as misstatements, improper designations, incorrect dates, misspellings, and a not too complete index also mar what is on the whole a useful, very readable, well illustrated, documented account, which hits all the high spots of the period covered.

ROBERT M. LUNNY,*
Washington, D. C.

I Accuse De Gaulle, by Henry de Kerillis.
(New York: Harcourt, Brace, and Company. 1946. Pp. 270. \$2.75.)

The author was a nationalist member of the French Chamber of Deputies where he distinguished himself by his stand against the Munich pact and, after the fall of France, became the editor of the New York French weekly *Pour la victoire*. Originally an ardent supporter of General De Gaulle, he later became his opponent and wrote this book to reveal the true nature of the De Gaullist movement.

According to the author the hero of the Fighting French deserted the cause which he had professed to serve and subordinated it to selfish political aims. General De Gaulle, instead of fighting the Germans, fought the Allies and Mr. Kerillis marshals all the available evidence in proof of this. Sometimes his documentation is scanty and he himself admits it. On the whole, however, the story is well substantiated by newspaper articles and by profuse quotations from the author's correspondence with General De Gaulle and other leading personages of the Free French movement.

Unfortunately Mr. de Kerillis became too bitter an antagonist of the French leader to be able



HENRY DE KERILLIS

to see the movement objectively. To him De Gaullism is "the Pétainism of the exile" (p. 259), a movement permeated with Fascist tendencies and at times dominated by Cagouard influences. In view of the cataclysmic upheavals of recent French history the author's claim that public men should be known before they become leaders seems to be far fetched. He insists that De Gaulle had not been known to the French (which certainly is not De Gaulle's fault), that his leadership was due to the radio which brought his voice from London across the Channel to millions of listeners who have developed a "mystic madness." In consequence the author claims that De Gaulle's fame "was the result of mass infatuation created by propaganda and kept alive through ignorance" (p. 250). And the final conclusion of the book that De Gaulle is not going to save France from Communism, that, on the contrary, he is going to plunge the country into it (p. 259), has been disproved by recent events.

The De Gaullist movement has remained strong even without De Gaulle who had voluntarily, and evidently only temporarily, withdrawn from

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political life. In the general elections of June 2, 1946, his party emerged as the largest in the Constituent Assembly, which is sufficient proof that there is more behind it than "mystic madness." In consequence it is safe to assume that the hero of the Free French movement may yet play an important role in France, even in Europe. To know the background of his political activities during the war, it is indispensable for the student of recent French history to read Mr. de Kerillis' spirited *J'accuse*.

ARPAD KOVACS,*
New York, N. Y.

Rival Partners: America and Britain in the Postwar World, by Keith Hutchison. (New York: The Macmillan Company. 1946. Pp. 262. \$2.00.)

In the 19th century it was the hope of the English Liberals that the ultimate result of the extension of the free trade principle would be the disappearance of war. "I see," said Richard Cobden, "in the Free-Trade principle that which shall act on the moral world as the principle of gravitation in the universe—drawing men together . . . and uniting us in the bonds of eternal peace." The logic of events, however, prevented the fulfillment of Cobden's dream. The return to protectionism in the late 1870's heightened tensions between nations and contributed to the inflamed nationalism which produced the first world war. Nor were the peacemakers of 1919 able to adopt measures which could keep economic nationalism within bounds. The period before the outbreak of the second world conflict was marked by tariff wars, currency wars, blocked credits, and the proliferation of import quotas, all of which choked the channels of trade and embittered international relations.

Keith Hutchison, presently on the staff of the *Nation*, rightly feels that the control of economic nationalism is the gravest problem of the postwar period, and he believes further that progress toward freer and more equitable economic relations between nations depends at the outset upon Anglo-American understanding and a continuation of the



KEITH HUTCHISON

collaboration which was so markedly successful during the war years. That collaboration, he feels, is in grave danger at the present time, and in *Rival Partners* he undertakes to analyze some of the forces which endanger it.

Mr. Hutchison carefully analyzes the present state of British economy and demonstrates the extent to which Britain must rely upon the United States for aid in the first postwar years. He has little sympathy with those who are claiming that the time has come for Britain to retire from the role of great power which she has played for so long. Britain is by no means as powerless as her critics suppose. If she is deprived of American collaboration, she will, he points out, do what she can on her own, an alternative which will in all probability reduce itself to bilateral trading and currency agreements with other nations, and the erection of an insulated trading system on the basis of the existing sterling area.

GORDON A. CRAIG*

*Mr. Kovacs, who is Professor of History at St. John's University, Brooklyn, has recently published "French Military Institutions Before the Franco-Prussian War," *American Historical Review*, LI (Jan. 1946), 217-235.

*Dr. Craig is Assistant Professor of History at Princeton University.

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SAMUEL ELIOT MORISON

To Samuel Eliot Morison,* author of *Operations in North African Waters* (October 1942-June 1943): *History of United States Naval Operations in World War II*,† for a superbly compiled and presented historical work which is destined to be of lasting value for historians in generations to come and which is a keenly interesting, colorful account for the casual reader.

Published as volume II, numerically, but first of a contemplated fourteen volume series, the history was planned by Mr. Morison shortly after the outbreak of the war at which time he was commissioned to do the work by President Roosevelt, personally, and his proposal received wholehearted sanction of the then Secretary of the Navy Knox who placed all records and facilities at his disposal. The author accomplished his objective in an official capacity as a naval historian, combining experienced scholarship and his extraordinary talent for research with the direct advantage of being on the scene during the entire fighting operation. The copyright is held by Mr. Morison, the book being printed after his return to civilian

status, yet the Navy gives it a quasi-official status and he continues on a per diem basis with its historical department where the top historians have enthusiastically acclaimed his work as being even more outstanding than it is esteemed to be by the nation's leading critics who have, without exception, given it top billing. Although naval historians are engaged in preparing a series of volumes dealing with the administrative history, Mr. Morison has been delegated the complete field of combat operations, the phase which he is most ardently interested in and one which he is eminently equipped to cover.

The odd "official-unofficial" arrangement permits the author to employ a writing style combining vivid readability with documented accuracy. In dealing with the landings in Morocco and Algeria, he begins with the diplomatic preliminaries of the invasion. These began in 1940 when, with the fall of France, Germany obtained control of the French Empire in Africa. He then goes into the intricate planning of this first major Allied offensive, which was the second American amphibious operation (after Guadalcanal) of the war. His narrative concentrates on naval activities, but simultaneously the political scene in North Africa is sketched in to render the general picture more complete. Writing from shipboard and, at times skillfully using a camera (a number of his own photographs are among the illustrations), Mr. Morison describes the battle action incident to the landings, giving a unique active participation flavor throughout. Far from being a record of personal experiences, however, he continually hammers home the inexcusable fact that the United States was not prepared for war. Uninhibited by censorship he raps the knuckles of high Navy commanders for faulty decisions and makes equally sharp comments upon conduct of certain military personnel.

The latter half of the book is devoted to "The Expeditions Against Algeria and Tunisia," in which he continues to give a "shooting history," a story, in the main, of naval combat, surface actions, submarine warfare, air warfare conducted from carriers, and amphibious operations. The end comes with the anti-climactic mop-up of Pantelleria and the Pelagies in mid-June, 1943. *Operations in North African Waters* can well be called a priceless contribution toward the goal of furthering American understanding of the problems of national security as it is being debated across the world today, in contrast to those early days in 1942 when so many grim and terrible lessons were imposed on the Allies through experience alone.

*Dr. Morison's permanent position is Jonathan Trumbull Professor of American History at Harvard University. He has been a writer of history for thirty years, his first book appearing in 1913. While serving with the Navy he attained the rank of Captain.

†Boston: Atlantic-Little, Brown; 1947. Pp. 297. \$5.00.